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PLANKTON STUDIES IN SAN FRANCISCO BAY. VI.

ZOOPLANKTON SPECIES COMPOSITION AND ABUNDANCE

IN THE NORTH BAY, 1979 - 1980

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U. S. GEOLOGICAL SURVEY

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San Francisco Bay estuary

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By Anne Hutchinson

ABSTRACT

Data are presented that summarize zooplankton species composition and abundance in North San Francisco Bay during 1979 and 1980. Sampling was conducted once monthly at six stations during 1979 and twice monthly at sixteen stations during 1980. Samples were collected by pump at three depths in the shipping channel and at one depth over the shoals. Subsamples were enumerated while alive. Total zooplankton biomass, as carbon, was calculated from estimated carbon quotas and abundances of each organism enumerated.

INTRODUCTION

The 1979 and 1980 North Bay data in this report are a continuation of the author's 1978 and 1979 study of South San Francisco Bay zooplankton (Hutchinson, 1981). In 1979 six stations located in the central channel from the Golden Gate Bridge to Pittsburg (Figure 2) were sampled monthly. In 1980 these stations plus eight others were sampled twice monthly. Six new stations were located in the lateral shoals of San Pablo Bay and Suisun Bay, and additional stations were located in the Sacramento River near Rio Vista and in the San Joaquin River east of Antioch.

Zooplankton studies in San Francisco Bay by other researchers are summarized in Hutchinson (1981).

METHODS

The 710 samples in this study were collected on 31 cruises between February 1979 and February 1981.

Sampling stations (Figure 1) were located in the ship channel (depth \approx 10 m) and over the shoals (depth \approx 2 m). In the ship channel three depths were sampled: near-surface, mid-depth, and near-bottom. Over the shoals one sample was taken at mid-depth. Samples were collected with a Jabsco¹ (Model No. 18270-0000) 2-inch bronze and brass pump with a neoprene impeller, powered by an electric Baldor (Model No. M3609) 3-phase, 220-v motor. The intake end of a 2-inch PVC reinforced hose (B. F. Goodrich Radial Flex) was lowered with a hydrowire in the shipping channel or by hand over the shoals to depth. Zooplankton were collected by pumping water through a 64- μ mesh net. Total volume sampled was about 1.5 m³.

¹Brand names are for identification purposes only and do not constitute endorsement by the U.S. Geological Survey.

All counts were done on live animals. The samples were placed in a pharmaceutical cylinder to settle, and wet volume was measured. Bay-water filtered through a 20- μ mesh screen was added to make up a volume approximately 100 times the settled volume. The made-up volume was usually 300 to 500 ml but ranged from 100 to 1000 ml. A 1-ml aliquot was removed with a Hensen-Stemple pipette and placed in a plexiglass counting tray. The counting trays have short narrow cells which reduce animal movement from ship motion and swimming. All the animals in the 1-ml aliquot were enumerated; usually at least 50 individuals of the most abundant species were enumerated. As only one aliquot was counted, rare species were either missed altogether or overestimated if present in the single aliquot. All samples were preserved in buffered formalin after counting.

An attempt was made to identify all animals to species level (Table II). Common copepod species were identified as females (F), males (M), copepodites (C), and nauplii (N). Unidentifiable organisms are referenced by letters (Table III and Figure 2). Estimates of precision of the sampling and counting methods are given in Hutchinson (1981).

While zooplankton were being collected, water samples were taken to measure vertical distributions of salinity (SALIN), temperature (TEMP), and chlorophyll a. Light extinction coefficient (EXCOF) was determined from vertical profiles of quantum irradiance. All discrete measurements of hydrographic data do not correspond to the same depths at which zooplankton were collected. In these cases hydrographic data were based upon linear interpolation of data collected at depths above and below depths of zooplankton sampling. In all cases the depth given is where the zooplankton were sampled and is not necessarily the depth of the

hydrographic data. The hydrographic parameters and chlorophyll a measurements included here are the closest measurements (in time and space) taken. For the actual data see Smith and Herndon (1982).

Semi-quantitative detritus measurements were made for each sample. See Table IV for relative values. No attempt has been made to correct the data for tidal stage at the time of collection, but data summary sheets note whether the tide was ebbing (-1), slack (0), or flooding (1).

Total zooplankton biomass is estimated in terms of carbon (mg C/m³). The carbon content of each taxon was estimated from the literature by conversion from volume measurements or by carbon analysis. Table II lists the estimates of carbon for each taxon used to calculate zooplankton carbon per cubic meter.

Most of the samples were collected by the author and Jim Cloern with assistance from Andrea Alpine, Brian Cole, Michael McGowan, and Ray Wong. All the samples were enumerated by the author with tabulation help from many people. Computer assistance was provided by Richard Smith and Grant Eisen.

REFERENCES

- Hutchinson, A., 1981, Plankton studies in San Francisco Bay. III.
Zooplankton species composition and abundance in the South Bay, 1978 -
1979: U.S. Geological Survey Open-File Report 81-132, 107 p.
- Smith, R.E., and Herndon, R.E., 1982, Physical and chemical properties of
San Francisco Bay waters, January 1980 - February 1981: U. S.
Geological Survey Open-File Report, (in prep.).

TABLE I. SAMPLING DATES AND STATIONS

DATE	STATIONS SAMPLED CHANNEL						
1979							
14 FEB	19,	17,	15,	12,	9,	6,	3
6 MAR	17,	15,	12,	9,	6,	3	
8 APR	17,	15,	12,	9,			
9 MAY	17,	15,	12,	9,	6,	3	
5 JUN	17,	15,	12,				
10 JUL	17,	15,	12,	9,	6,	3	
14 AUG	17,	15,	12,	9,	6,	3	
18 SEP	17,	15,	12,	9,	6,	3	
1980							
9 JAN	17,	15,	13,	9,	6,	3,	657
24 JAN	19,	17,	15,	13,	9		
6 FEB	19,	17,	15,	13,	9,	6,	4, 657
5 MAR	17,	15,	13,	9,	6,	3	
19 MAR	19,	17,	15,	13,	9,	6,	3, 657
9 APR	17,	15,	13,	9,	6,	3,	657
23 APR	19,	17,	15,	13,	9,	6,	3, 657
8 MAY	17,	15,	13,	9,	6,	3,	657
22 MAY	19,	17,	15,	13,	9,	6,	3, 657
5 JUN	17,	15,	13,	9,	6,	3,	657
18 JUN	17,	15,	13,	9,	6,	3,	657
2 JUL	19,	17,	15,	13,	9,	6,	3, 657
17 JUL	17,	15,	13,	9,	6,	3,	657
5 AUG	17,	15,	13,	9,	6,	3,	657
19 AUG	17,	15,	13,	9,	6,	3,	657
4 SEP	17,	15,	13,	9,	6,	3,	657
17 SEP	17,	15,	13,	9,	6,	3,	657
16 OCT	17,	15,	13,	9,	6,	3,	657
29 OCT	17,	15,	13,	9,	6,	3,	657
13 NOV	17,	15,	13,	9,	6,	3,	657
17 DEC	17,	15,	13,	9,	6,	3,	657
1981							
10 FEB	17,	15,	13,	9,	6,	3	

TABLE I. SAMPLING DATES AND STATIONS continued

DATE	STATIONS SAMPLED SHOALS
1980	
9 JAN	302, 306, 312, 318, 324, 334, 404, 414, 418, 757
6 FEB	302, 312, 318, 324, 334, 404, 418, 438, 757
5 MAR	312, 318, 324, 404, 418
19 MAR	302, 306, 312, 318, 324, 334
9 APR	302, 306, 312, 318, 324, 334, 414, 418, 757
23 APR	302, 306, 312, 318, 324, 334
8 MAY	302, 306, 312, 318, 324, 334, 414, 418, 757
22 MAY	302, 306, 312, 318, 324, 334, 414, 418
5 JUN	302, 306, 312, 318, 324, 334, 414, 420, 757
18 JUN	302, 312, 318, 404, 414, 418, 438, 757
17 JUL	302, 306, 312, 318, 324, 414, 415, 432, 757
5 AUG	324, 414, 418, 432, 757
19 AUG	302, 306, 312, 318, 324, 334, 414, 418, 432, 757
4 SEP	302, 306, 312, 318, 324, 334, 414, 418, 432, 757
17 SEP	306, 312, 318, 324, 414, 418, 432, 757
16 OCT	302, 306, 312, 318, 324, 334, 414, 418, 432, 757
29 OCT	302, 306, 312, 318, 324, 334, 414, 418, 432, 757
13 NOV	302, 306, 312, 318, 324, 334, 414, 432, 751
17 DEC	302, 306, 312, 318, 324, 334, 414, 418, 432, 757
1981	
10 FEB	312, 318, 418

TABLE II. SPECIES LIST
With codes, carbon values and sources

F = Female, M = Male, C = Copepodite, N = Nauplius

Code	Species	us C/animal	Source
5	Acartia clausi F	2.770	1
6	Acartia clausi M	1.400	1
7	Acartia clausi C	0.800	3
8	Acartia clausi N	0.100	3
10	Acartia californiensis F	2.900	4
11	Acartia californiensis M	1.600	4
12	Acartia californiensis C	0.800	4
13	Acartia californiensis N	0.100	4
17	Acartia tonsa F	2.900	4
18	Acartia tonsa M	1.600	4
27	Tortanus discudatus F	8.000	4
28	Tortanus discudatus M	6.000	4
29	Tortanus discudatus C	3.000	4
30	Calanus pacificus F	67.800	3
31	Calanus pacificus M	60.000	3
32	Calanus pacificus C	20.000	4
36	Calanus tenuicornis C	5.000	4
37	Calanus tenuicornis N	0.500	4
60	Paracalanus parvus F	2.500	4
61	Paracalanus parvus M	2.500	4
62	Paracalanus parvus C	0.500	4
63	Paracalanus parvus N	0.100	4
70	Pseudocalanus sp.A F	8.000	4
72	Pseudocalanus sp.A C	3.000	4
100	Eurytemora affinis F	3.200	2
101	Eurytemora affinis M	2.500	2
102	Eurytemora affinis C	1.000	2
131	Metridia pacifica M	10.000	4
132	Metridia pacifica C	5.000	4
143	Sinocalanus dorii F	8.000	4
161	Pseudodiaptomus euryhalinus M	4.000	4
162	Pseudodiaptomus euryhalinus C	2.000	4
190	Epilabidocera longipedata F	40.000	4
191	Epilabidocera longipedata M	30.000	4
192	Epilabidocera longipedata C	12.000	4
194	copepodite (unknown)	3.000	4
195	copepod nauplius D	0.200	4
196	copepod nauplius A	0.100	4
197	copepod nauplius B	0.100	4
197	copepod nauplius B	0.100	4
199	copepod nauplius	0.100	4
200	Cyclopoida	3.000	4
210	Oithona spp.	0.600	4
213	Oithona spinirostris	0.700	4
220	Corycaeus sp.	1.400	4
250	Harpacticoids	1.200	4
251	Harpacticoid B (bronze)	1.000	4
260	Sapphirina spp.	1.800	4
270	Microsetella sp.	0.800	4
280	Harpacticoid sp.A	0.800	4
281	Harpacticoid A N	0.080	4
300	Amphipoda	0.000	
320	Isopoda	0.000	
321	Isopoda imm.	0.000	
325	Synidotea laticauda imm.	0.000	
331	Mysid Juvenile	0.000	

1. CHN analysis

2. Carbon value from literature

3. Estimated from literature dry wt.

4. Estimated from volume measurements

If no carbon is listed, the species was not included in carbon estimates.

Table II. SPECIES LIST Continued

333	Neomysis mercedis juv.	0.000
345	Grapsid zoea	0.000
350	Xanthid zoea	0.000
355	Cancer zoea	0.000
360	Pinnotherid zoea	0.000
370	Natantia zoea	0.000
376	Crassion sp.	0.000
391	euphausiid nauplius	0.000
401	barnacle nauplius	1.500
402	barnacle cypris	2.000
420	Ostracoda	1.000
450	Evdene	1.500
451	Podon	1.500
460	Halocarida	2.500
505	echinoderm pleuteus larva	0.800
520	Chaetognatha	5.000
521	Sagitta spp.	5.000
540	Larvacea	1.000
541	Oikopleuridae	1.000
545	Ascidian larva	1.000
551	Endraulis mordax egg	1.000
559	other fish egg	1.000
560	fish larva	0.000
570	Gobiidae larva	0.000
582	Engraulis mordax larva	0.000
601	tintinniid spp.	0.010
602	Tintinnopsis sp. A	0.020
603	Tintinnopsis sp. B	0.008
604	Tintinniid sp.C	0.008
605	Eutintinnus neriticus	0.020
607	Tintinnopsis sp.D (2B)	0.012
608	Parafavella sp.	0.010
609	Tintinnopsis sp. E (1/4B)	0.001
625	ciliate	0.001
630	coiled Foraminifera	0.050
661	Hydroids (stalked)	0.000
666	Polyorchis spp.	0.000
681	flatworm sp. A	1.500
682	flatworm sp. B	1.500
690	Nemertins	2.000
691	Pilidium larva	0.500
692	Nemertine larva	1.000
700	Rotifers	0.050
701	Synchaeta spp.	0.050
702	Synchaeta spp. egg	0.050
705	Keratella spp.	0.030
713	Asplanchna spp.	0.070
740	Nematoda	2.000
748	Phoronida larva	0.500
750	Ectoprocta (Bryozoa)	0.000
751	Ectoprocta larva	0.200
790	Mollusca	0.000
801	Gastropod veliger	0.300
821	Bivalvia veliger	0.300
851	polychaete trochophore	1.200
852	polychaete larva	0.000
855	spionid larva	2.300
856	Polydora lisma	3.000
880	scaleworm larva	2.300
899	pelagic polychaete	4.000

1. CHN analysis

2. Carbon value from literature

3. Estimated from literature dry wt.

4. Estimated from volume measurements

If no carbon is listed, the species was not included in carbon estimates.

TABLE III. NOTES ON UNIDENTIFIED SPECIES

<u>CODE</u>	<u>SPECIES</u>	<u>NOTES</u>
195	Copepod nauplius D	Fig. 2A
196	Copepod nauplius A	Probably a parasitic copepod, not a nauplius. Fig. 2B
197	Copepod nauplius B	Perhaps <u>Eurytemora affinis</u> nauplius. Fig. 2C
198	Copepod nauplius C	Fig. 2D
280	Harpacticoid sp. A	Red color in live animal. Fig. 2E
281	Harpacticoid sp. A N	Distinguishable only by red color in live animal.
602	<u>Tintinnopsis</u> sp. A	Fig. 2F
603	<u>Tintinnopsis</u> sp. B	Fig. 2G
604	Tintinnid sp. C	Probably preserved <u>Parafavella</u> sp.
681	Flatworm sp. A	Polyclad turbellaria Fig. 2H
682	Flatworm sp. B	Non polyclad turbellaria. May contain several species.
855	Spionid larva	Probably <u>Polydora ligna</u>
880	Scale worm larva	Probably <u>Hermothoe imbricata</u>

TABLE IV. DEFINITION OF DETRITUS MEASUREMENT

<u>DETRITUS MEASUREMENT</u>	<u>VOLUME (in ml) OF NONLIVING MATERIAL IN 1.5 m³ OF WATER</u>
-	Not measured
0	0
1	<1
2	1-4
3	5-10
4	>10

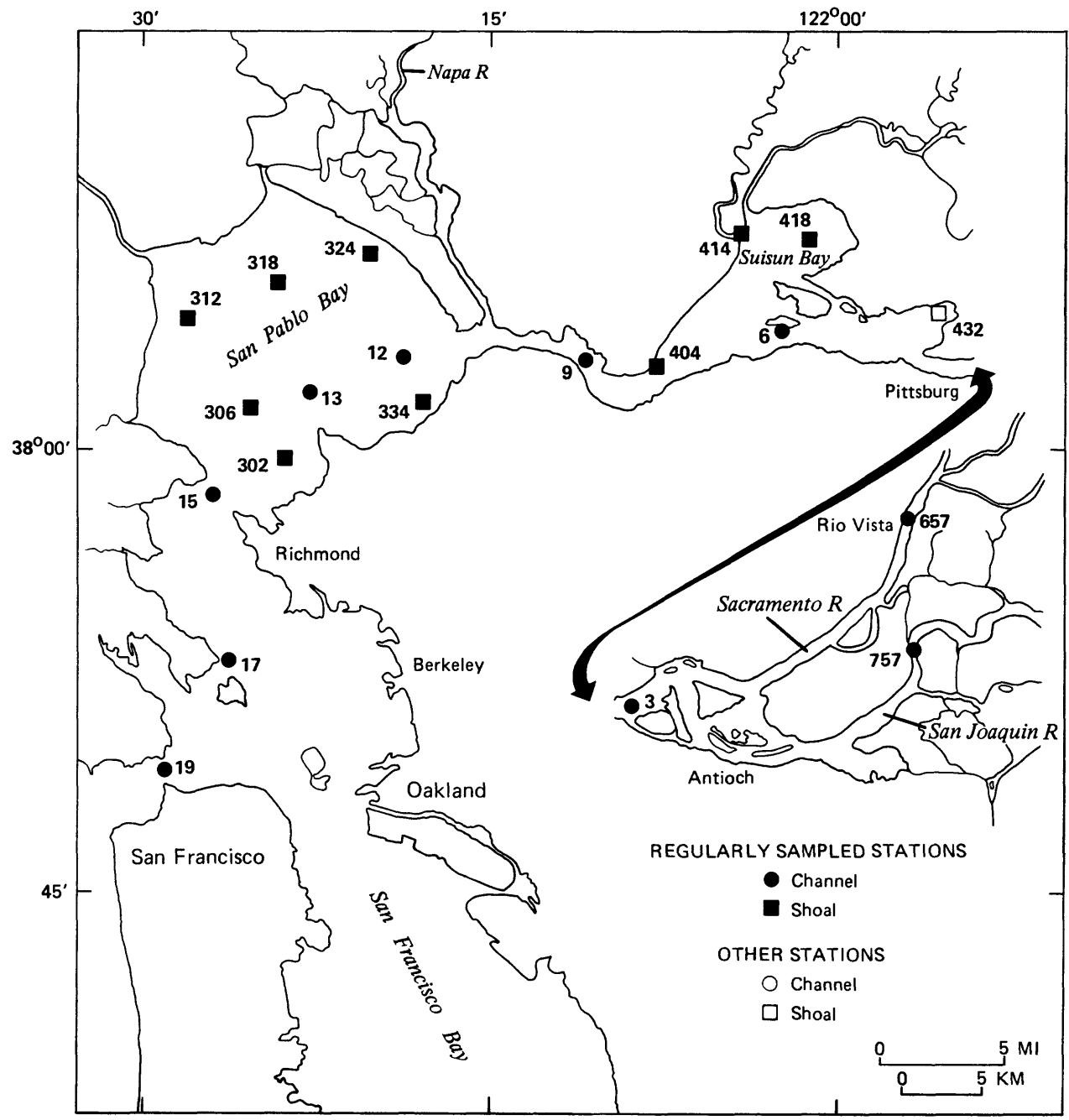


Figure 2. Map of North San Francisco Bay showing sampling stations.

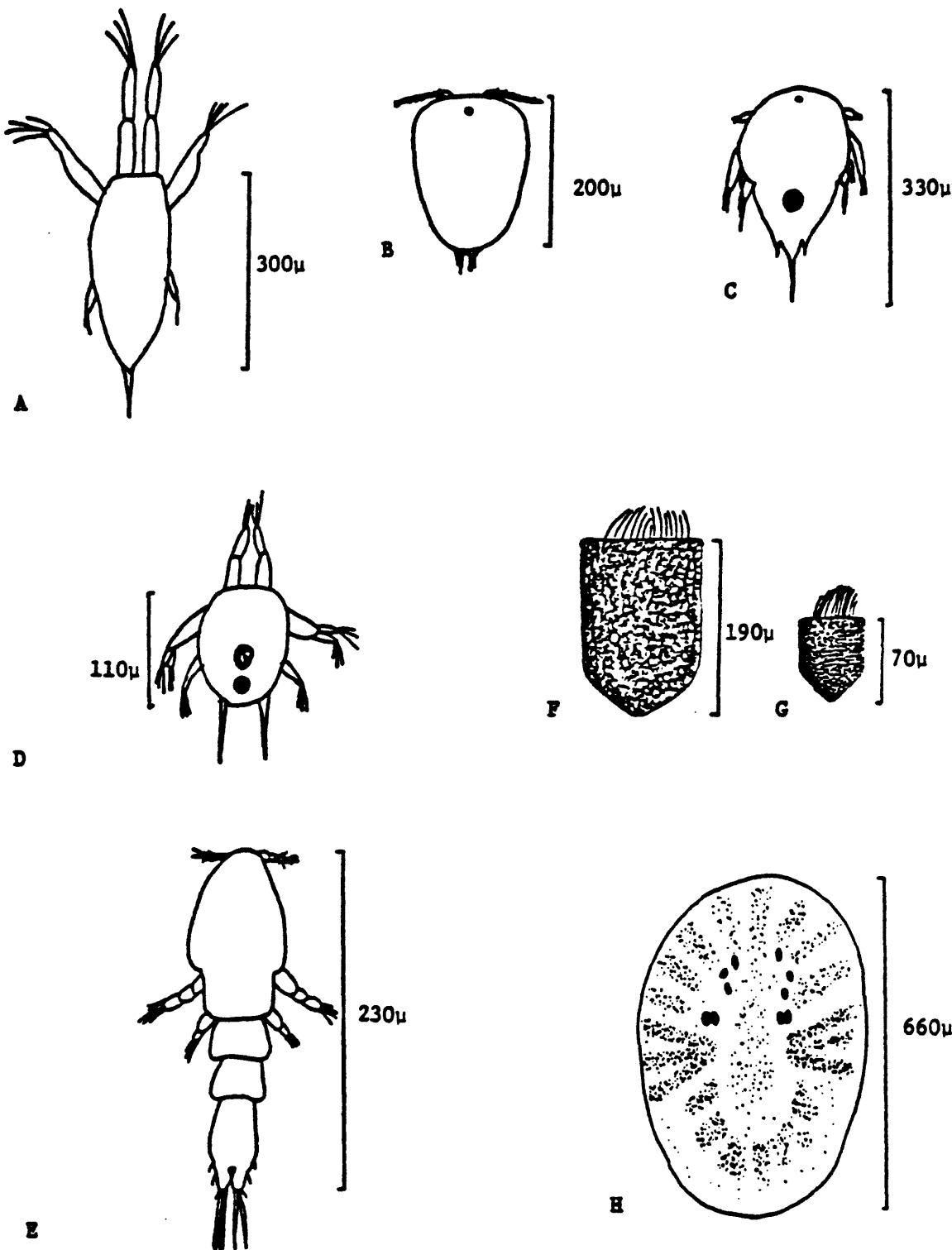


Figure 2. Illustrations of Unknown Species. A, copepod nauplius D; B, copepod nauplius A; C, copepod nauplius B; D, copepod nauplius C; E, harpacticoid sp. A; F, *Tintinnopsis* sp. A; G, *Tintinnopsis* sp. B; H, Flatworm sp. A.

APPENDIX A. ZOOPLANKTON DATA TABLES

U.S. GEOLOGICAL SURVEY - WATER RESOURCES

ESTUARINE STUDIES GROUP
ZOOPLANKTON

Page 1

DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
140279	79045	North S.F.Bay	Polaris	80

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1330	19	11.0	11.2	30.6	2.3	-	-	1	ship
1335	19	2.0	11.2	30.4	3.2	0.8	-	1	ship
1236	17	10.0	11.0	28.9	2.3	1.4	-	1	ship
1242	17	5.0	11.0	28.8	2.2	0.3	-	1	ship
1249	17	1.0	11.0	25.0	1.9	1.0	-	1	ship
1136	15	9.0	10.8	24.4	2.3	1.6	-	1	ship
1142	15	5.0	10.8	23.3	2.3	1.1	-	1	ship
1148	15	1.0	10.9	22.3	2.6	2.0	-	1	ship

Code	Name	Station Depth	11.0	19	2.0	10.0	17	5.0	1.0	9.0	15	5.0	1.0
5	Acartia clausi F		267		0		1400	1000	200	333	1400	200	
6	Acartia clausi M		267		0		400	1800	200	0	2000	0	
7	Acartia clausi C		1000		943		1000	4800	1200	2667	8000	9200	
8	Acartia clausi N		0		0		0	200	400	1667	5600	16600	
36	Calanus tenuicornis C		267		0		200	600	0	0	0	0	
60	Paracalanus parvus F		0		0		600	400	0	0	200	0	
61	Paracalanus parvus M		0		0		200	400	0	0	0	0	
62	Paracalanus parvus C		533		0		400	800	0	0	0	0	
100	Eurytemora affinis F		0		0		0	0	0	0	0	0	
101	Eurytemora affinis M		0		0		0	0	0	0	0	0	
102	Eurytemora affinis C		0		0		0	0	0	0	0	0	
103	Eurytemora affinis N		0		0		0	0	0	0	0	0	
194	copepodite (unknown)		267		0		0	0	0	0	0	0	
196	copepod nauplius A		267		943		0	0	400	0	0	0	
199	copepod nauplius		1333		3774		0	0	600	0	0	0	
200	Cyclopoida		267		943		0	0	1200	0	0	0	
210	Oithona spp.		0		0		0	200	0	0	200	0	
250	Harpacticoids		0		0		200	200	0	0	0	0	
281	Harpacticoid A N		0		0		0	0	200	0	0	0	
401	barnacle nauplius		800		0		0	0	200	333	0	400	
420	Ostracoda		0		0		200	0	0	0	0	0	
440	Cladocera		0		0		0	0	0	0	0	0	
441	Rosmina sp.		0		0		0	0	0	0	0	0	
520	Chaetognatha		267		0		0	0	0	0	0	0	
559	other fish egg		800		0		0	0	0	0	0	0	
603	Tintinnopsis sp. B		0		0		0	0	0	0	400	0	
801	Gastropod veliger		0		0		0	0	0	0	0	0	
821	Bivalvia veliger		800		0		200	800	800	0	0	0	800
855	spionid larva		573		0		0	400	1400	0	0	0	0

as Carbon per cubic meter

10 4 9 16 9 4 14 10

U.S. GEOLOGICAL SURVEY - WATER RESOURCES

ESTUARINE STUDIES GROUP
ZOOPLANKTON

Page 2

DATE JULIAN DATE LOCATION VESSEL MESH SIZE
140279 79045 North S.F.Bay Polaris 80

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETITUS	TIDE	COUNT
		m	C	‰/o	ug/l	/m			type
1030	12	6.0	10.4	17.5	2.4	2.9	-	1	ship
1035	12	3.0	10.4	15.8	2.0	2.0	-	1	ship
1041	12	1.0	10.4	15.7	2.0	1.8	-	1	ship
917	9	10.0	10.0	11.3	2.4	5.3	-	-1	ship
923	9	5.0	10.0	10.8	2.4	4.2	-	-1	ship
929	9	1.0	10.0	10.8	1.7	4.0	-	-1	ship
800	6	9.0	9.8	5.6	2.5	6.7	-	-1	ship
805	6	5.0	9.8	5.7	2.5	5.5	-	-1	ship
811	6	1.0	9.8	5.7	3.1	4.5	-	-1	ship

Code	Name	Station Depth	6.0	3.0	1.0	10.0	5.0	1.0	Number per cubic meter		
									12	9	6
5	Acartia clausi F	4000	4800	600	1867	2800	400	0	0	0	
6	Acartia clausi M	1333	4200	800	1067	0	0	0	0	0	
7	Acartia clausi C	1067	1200	1400	267	600	200	0	0	0	
8	Acartia clausi N	0	0	200	0	0	200	0	0	0	
36	Calanus tenuicornis C	0	0	0	0	0	0	0	0	0	
60	Paracalanus parvus F	267	0	0	0	0	0	0	0	0	
61	Paracalanus parvus M	0	0	0	0	0	0	0	0	0	
62	Paracalanus parvus C	0	0	0	0	0	0	0	0	0	
100	Eurytemora affinis F	0	0	0	0	200	0	233	467	0	
101	Eurytemora affinis M	0	0	0	0	0	0	233	233	200	
102	Eurytemora affinis C	0	0	0	0	0	200	933	0	200	
103	Eurytemora affinis N	0	0	0	0	0	0	0	0	400	
194	copepodite (unknown)	0	0	0	0	0	0	233	0	200	
196	copepod nauplius A	0	0	0	0	0	0	0	0	0	
199	copepod nauplius	0	0	0	0	0	0	0	0	0	
200	Cyclopoida	0	0	1000	533	200	0	933	700	1000	
210	Oithona spp.	0	0	0	0	0	0	0	0	0	
250	Harpacticoida	267	0	0	267	200	400	933	1633	800	
281	Harpacticoid A N	0	0	0	0	0	0	0	0	0	
401	barnacle nauplius	0	0	400	267	0	400	0	0	0	
420	Ostracoda	0	0	0	0	0	0	0	0	0	
440	Cladocera	0	0	0	0	0	0	233	233	0	
441	Bosmina sp.	0	0	0	0	0	0	0	0	0	
520	Chaetognatha	0	0	0	0	0	0	0	0	0	
559	other fish egg	0	0	0	0	0	0	0	0	0	
603	Tintinnopsis sp. B	0	0	800	0	0	0	0	0	0	
801	Gastropod veliger	0	0	0	267	0	0	0	0	0	
821	Rivalvis veliger	0	0	0	0	0	0	0	0	0	
855	spionid larva	0	0	0	0	0	0	0	0	0	

Carbon per cubic meter

15	20	8	9	10	3	7	6	5
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
140279	79045	North S.F.Bay	Polaris	80

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
646	3	10.0	9.8	1.3	2.5	4.6	-	-1	ship
652	3	5.0	9.8	1.2	2.5	4.1	-	-1	ship
658	3	1.0	9.6	0.8	2.1	5.5	-	-1	ship

Station
Depth 10.0 3
 5.0 1.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	0	0	0
6	Acartia clausi M	0	0	0
7	Acartia clausi C	0	0	0
8	Acartia clausi N	0	0	0
36	Calanus tenuicornis C	0	0	0
60	Paracalanus parvus F	0	0	0
61	Paracalanus parvus M	0	0	0
62	Paracalanus parvus C	0	0	0
100	Eurytemora affinis F	614	0	200
101	Eurytemora affinis M	0	800	800
102	Eurytemora affinis C	2047	3800	2800
103	Eurytemora affinis N	0	4200	0
194	copepodite (unknown)	0	0	0
196	copepod nauplius A	0	0	0
199	copepod nauplius	3479	0	800
200	Cyclopoida	2661	600	0
210	Oithona spp.	0	0	0
250	Harpacticoids	1023	600	0
281	Harpacticoid A N	0	0	0
401	barnacle nauplius	0	0	0
420	Ostracoda	0	0	0
440	Cladocera	0	0	0
441	Bosmina sp.	0	0	200
520	Chaetognatha	0	0	0
559	other fish egg	0	0	0
603	Tintinnopsis sp. B	0	0	0
801	Gastropod veliger	0	0	0
821	Bivalvia veliger	0	0	0
855	spionid larva	0	0	0

µg Carbon per cubic meter

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DATE 60379	JULIAN DATE 79065	LOCATION North S.F. Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETITUS	TIDE	COUNT type
1515	17	8.5	11.4	20.4	1.7	2.0	-	-1	ship
1522	17	4.0	11.5	13.1	1.8	2.0	-	-1	ship
1530	17	1.0	11.7	12.2	2.1	2.4	-	-1	ship
1402	15	10.0	12.5	11.1	1.9	2.0	-	-1	ship
1409	15	6.0	12.6	8.7	2.1	2.2	-	-1	ship
1416	15	1.0	12.6	6.3	2.6	2.4	-	-1	ship
1251	12	7.0	11.3	20.1	1.7	9.3	-	-1	ship
1258	12	4.0	11.3	19.1	1.8	6.2	-	-1	ship
1306	12	1.0	11.5	8.5	1.7	3.8	-	-1	ship

Code	Name	Station	17	15	12					
		Depth	8.5	4.0	1.0	10.0	6.0	1.0	7.0	4.0
5	Acartia clausi F	3733	933	466	800	266	0	4266	2000	266
6	Acartia clausi M	3200	1400	0	1200	0	0	12266	4666	0
7	Acartia clausi C	4266	2100	466	6600	800	1200	1866	1000	3466
8	Acartia clausi N	0	1866	4666	12800	13866	32000	3200	666	22666
60	Paracalanus parvus F	533	0	0	0	0	0	533	666	0
61	Paracalanus parvus M	266	0	0	0	0	0	0	0	0
62	Paracalanus parvus C	2400	233	0	200	0	0	533	1000	0
100	Eurytemora affinis F	0	0	0	0	0	0	0	0	0
101	Eurytemora affinis M	0	0	0	0	0	0	0	0	0
102	Eurytemora affinis C	0	0	0	0	0	200	533	0	0
143	Sinocalanus dorii F	0	0	0	0	0	0	0	0	0
145	Sinocalanus dorii C	0	0	0	0	0	0	0	0	0
194	copepodite (unknown)	0	0	0	0	0	0	0	0	0
198	copepod nauplius C	0	0	0	0	0	0	0	0	0
199	copepod nauplius	0	0	0	0	0	0	0	0	0
200	Cyclopoida	266	0	233	0	0	1000	0	666	266
220	Corycaeus sp.	266	0	0	0	0	0	266	0	0
250	Harpacticoida	266	0	233	1000	1066	400	533	333	0
320	Isopods	0	0	0	0	0	0	0	333	0
401	barnacle nauplius	0	233	0	200	0	0	0	333	0
440	Cladocera	0	0	0	0	0	0	0	0	0
520	Chaetognatha	266	0	0	0	0	0	266	0	0
560	fish larva	0	0	0	0	0	0	0	0	0
601	tintinnid spp.	80000	72333	81666	26000	46666	42000	133333	108333	33333
700	Rotifera	0	0	0	200	0	800	0	333	0
740	Nematoda	0	0	0	0	0	0	0	0	0
821	Bivalvia veliger	0	0	1866	200	266	200	0	0	266
850	Polychaeta	0	0	0	0	0	0	0	0	0
855	spionid larva	266	233	233	0	0	0	0	0	0

µg Carbon per cubic meter									
26	8	5	12	5	8	37	19	7	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
30479	79093	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF ‰	DETITUTUS	TIDE	COUNT type
938	9	9.0	5.8	14.3	4.6	3.5	-	-1	ship

Station	9
Depth	9.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
102	Eurytemora affinis C	400
194	copepodite (unknown)	200
197	copepod nauplius B	0
199	copepod nauplius	1200
200	Cyclopoida	1200
250	Harpacticoida	0
320	Isopoda	0
332	Neomysis mercedis	1400
340	Reptantia zoea	0
370	Natantia zoea	0
401	barnacle nauplius	0
402	barnacle cypris	0
560	fish larva	200
581	Clupea harengus	0
601	tintinnid spp.	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
630	coiled Foraminifera	0
700	Rotifers	0
701	Synchaeta sp.	200
801	Gastropod veliger	0
821	Bivalvia veliger	0
855	spionid larva	0
880	scaleworm larva	0
899	pelagic Polychaete	0

as Carbon per cubic meter

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DATE 90579	JULIAN DATE 79129	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1301	17	14.0	13.0	30.1	6.2	1.4	5	1	ship
1307	17	7.0	13.2	29.9	4.6	0.7	4	1	ship
1313	17	1.0	14.0	28.8	2.7	0.6	1	1	ship
1157	15	14.0	14.2	2.4	3.9	2.7	3	1	ship
1203	15	7.0	14.3	25.6	2.8	1.8	2	1	ship
1209	15	1.0	14.4	24.0	2.7	2.6	1	1	ship
1041	12	8.0	15.4	19.7	16.0	36.7	5	1	ship
1044	12	4.0	15.7	18.1	9.6	16.0	5	1	ship
1048	12	1.0	15.9	16.6	4.3	4.0	1	1	ship

Code	Name	Station	17	15	12					
		Depth	14.0	7.0	1.0	8.0	4.0	1.0		
5	Acartia clausi F	1000	3000	0	666	1333	0	2222	2777	2000
6	Acartia clausi M	0	0	0	333	1333	0	1666	2777	333
7	Acartia clausi C	4000	4000	0	5000	6333	7000	1111	1666	32666
8	Acartia clausi N	3000	333	5666	3666	11333	3333	0	0	18666
100	Eurytemora affinis F	0	0	0	0	0	0	0	0	0
101	Eurytemora affinis M	0	0	0	0	0	0	0	0	0
102	Eurytemora affinis C	0	0	0	0	0	0	0	0	0
103	Eurytemora affinis N	0	0	0	0	0	0	0	0	0
161	Pseudodiaptomus eurhalinus M	0	0	0	0	333	0	0	0	0
194	copepodite (unknown)	0	0	0	0	0	0	555	0	0
196	copepod nauplius A	0	0	0	0	333	0	0	0	0
200	Cyclopoida	0	0	0	0	333	0	0	0	0
220	Corycaeus sp.	0	0	0	333	0	333	0	0	0
250	Harpacticoida	1000	666	666	1000	666	333	0	0	1333
332	Neomysis mercedis	0	0	0	0	0	0	0	0	0
333	Neomysis mercedis Juv.	0	0	0	0	0	0	0	0	0
401	barnacle nauplius	0	333	0	1000	1333	1000	0	0	14666
402	barnacle cypris	0	0	333	0	333	0	0	0	0
540	Larvacea	0	0	666	0	0	0	0	0	0
602	Tintinnopsis sp. A	333	0	333	2000	1000	13666	1666	32222	3000
603	Tintinnopsis sp. B	0	0	0	0	0	10000	0	0	88333
604	Tintinnid sp.C	0	0	1000	0	0	333	0	0	0
630	coiled Foraminifera	0	0	0	333	0	0	0	0	0
700	Rotifera	333	0	333	0	0	1000	0	0	2000
801	Gastropod veliger	0	0	0	0	333	333	0	0	0
821	Bivalvia veliger	0	333	0	333	666	1333	0	0	0
855	spionid larva	333	1000	1666	666	1666	1333	0	0	0
880	scaleworm larva	0	0	333	333	0	0	0	0	0

as Carbon per cubic meter										
8	15	7	12	22	12	11	14	58		

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DATE 50679	JULIAN DATE 79156	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETITUTUS	TIDE	COUNT type
1446	17	14.0	15.9	27.1	3.4	0.8	-	1	lab
1452	17	6.0	17.1	25.3	3.4	0.8	-	1	lab
1458	17	1.0	18.0	24.1	3.2	0.8	-	1	lab
1345	15	12.0	16.4	25.6	3.4	1.3	-	1	lab
1353	15	6.0	17.3	23.9	3.4	1.4	-	1	lab
1400	15	1.0	19.2	21.4	3.2	1.0	-	1	lab
1225	12	9.0	17.2	23.6	4.5	1.0	-	1	lab
1223	12	4.0	17.3	23.3	4.5	1.0	-	1	lab
1237	12	1.0	19.4	18.2	14.8	1.8	-	1	lab

Code	Name	Station	17	15	12					
		Depth	14.0	6.0	1.0	12.0	6.0	1.0	9.0	4.0
8	Acartia clausi N	4000	13200	3200	7000	9933	2355	8178	8089	6622
10	Acartia californiensis F	133	0	0	0	200	44	356	1	0
11	Acartia californiensis M	67	0	67	0	0	44	267	0	0
12	Acartia californiensis C	1000	1667	600	5556	3933	489	7289	1511	2044
162	Pseudodiaptomus euryhalinus C	0	0	0	0	0	2	0	0	0
200	Cyclopoida	67	133	1	111	0	44	89	356	0
250	Harpacticoids	667	533	400	556	533	178	267	267	444
340	Reptantia zoea	4	1	2	0	0	0	1	0	0
370	Natantia zoea	3	8	1	5	2	0	3	0	2
401	barnacle nauplius	1533	1267	400	1667	1333	311	1067	1156	29
402	barnacle cypris	1	0	0	0	33	0	13	0	9
551	Engraulis mordax egg	0	0	0	0	0	5	0	0	4
559	other fish egg	27	0	0	0	0	0	0	5	0
602	Tintinnopsis sp. A	0	0	0	222	67	0	0	800	89
604	Tintinnid sp.C	1200	600	667	444	266	0	267	0	0
605	Eutintinnus neriticus	0	0	0	222	0	0	0	356	44
630	coiled Foraminifera	0	0	0	111	0	0	0	0	0
701	Synchaeta sp.	1333	8933	3333	0	1067	267	267	711	400
702	Synchaeta sp. egg	133	733	200	0	67	0	0	89	44
801	Gastropod veliger	200	333	0	0	0	0	178	89	89
821	Bivalvia veliger	333	67	0	111	200	133	178	0	0
851	Polychaete trochophore	0	0	0	0	0	0	0	0	44
855	spionid larva	200	7067	3133	667	4133	178	622	444	89
880	scaleworm larva	67	5	67	2	133	0	2	89	0

µg Carbon per cubic meter									
6	22	10	10	17	2	12	6	3	

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DATE 10079	JULIAN DATE 79191	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64					
TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1144	9	14.0	19.8	11.8	16.9	6.3	5	0	ship
1148	9	7.0	19.9	11.6	17.6	6.4	5	0	ship
1158	9	1.0	19.9	11.0	17.6	4.1	3	0	ship
1037	6	9.0	20.5	5.6	33.5	7.9	5	-1	ship
1041	6	5.0	20.5	5.6	33.5	7.8	5	-1	ship
1047	6	1.0	20.6	5.6	33.5	8.3	5	-1	ship
932	3	8.0	20.4	2.5	18.1	8.6	5	-1	ship
939	3	4.0	20.4	2.4	16.9	8.0	5	-1	ship
946	3	1.0	20.3	2.2	13.8	7.0	5	-1	ship

Code	Name	Station Depth	Number per cubic meter							
			9 14.0	7.0	1.0	9.0 1.0	6 5.0	1.0	8.0 4.0	3 1.0
8	Acartia clausi N	0	667	1667	2778	417	833	0	0	0
10	Acartia californiensis F	0	4667	0	0	0	0	0	0	0
11	Acartia californiensis M	3333	667	667	0	0	0	0	0	0
12	Acartia californiensis C	2000	0	1000	0	0	0	0	0	0
143	Sinocalanus dorii F	0	667	0	556	833	1250	2000	1667	1333
144	Sinocalanus dorii M	0	0	0	1111	1667	833	2778	2778	1667
145	Sinocalanus dorii C	0	1333	0	2778	2476	1250	1667	2778	2000
162	Pseudodiaptomus eurhalinus C	0	0	0	0	0	0	0	0	0
194	copepodite (unknown)	0	0	0	0	0	0	333	0	1333
199	copepod nauplius	0	0	0	0	0	0	0	333	0
200	Cyclopoida	0	0	0	0	0	0	0	0	0
250	Harpacticoids	0	0	1000	556	0	0	333	0	0
300	Amphipoda	0	0	0	0	0	0	0	0	0
333	Neomysis mercedis juv.	0	0	0	0	1	0	0	0	0
340	Reptantia zoea	0	0	0	0	417	0	0	0	0
370	Natantia zoea	0	0	0	0	0	0	0	0	0
401	barnacle nauplius	3333	11333	9667	6111	2476	2476	0	0	333
402	barnacle cypris	1333	2000	1000	0	833	0	0	0	0
551	Engraulis mordax egg	0	0	0	0	0	0	0	0	0
559	other fish egg	0	0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	0	0	0	0	0	0	0	0	0
603	Tintinnopsis sp. B	1333	1333	333	0	0	0	0	0	0
604	Tintinnid sp.C	0	0	0	0	0	0	0	0	0
630	coiled Foraminifera	0	0	0	0	0	0	0	333	0
681	flatworm sp. A	0	0	0	0	0	0	0	0	0
700	Rotifers	0	0	0	556	0	0	0	0	0
701	Synchaeta sp.	0	0	0	0	0	0	0	0	0
702	Synchaeta sp. egg	0	0	0	0	0	0	0	0	0
801	Gastropod veliger	0	0	0	0	0	0	0	0	0
821	Bivalvia veliger	667	0	0	0	0	0	0	0	0
851	Polychaete trochophore	0	0	0	0	0	0	0	0	0
855	spionid larva	2667	1333	0	1111	417	0	0	0	0

mg Carbon per cubic meter

21 48 20 32 30 23 39 38 31

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
140879	79226	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETITUTUS	TIDE	COUNT
		m	C	oo/o	us/l	/m			type
1609	17	9.0	16.4	31.5	3.4	0.7	1	1	ship
1615	17	5.0	16.4	31.3	2.6	0.7	1	1	ship
1621	17	1.0	16.6	31.0	2.3	0.7	1	1	ship
1452	15	10.0	18.5	28.4	1.3	0.8	1	1	ship
1458	15	6.0	18.0	28.0	1.3	0.8	1	1	ship
1504	15	1.0	17.8	27.0	1.3	0.8	1	1	ship
1328	12	9.0	19.1	23.7	2.0	1.3	1	0	ship
1334	12	5.0	19.1	23.7	2.0	1.3	1	0	ship
1340	12	1.0	20.0	20.0	2.0	0.9	1	0	ship

Code	Name	Station Depth	17	15	12			
			5.0	6.0	5.0	1.0	9.0	1.0
7	Acartia clausi C	0	1000	533	0	0	0	0
8	Acartia clausi N	0	5200	1067	0	0	0	0
10	Acartia californiensis F	0	0	0	2400	0	533	1667
11	Acartia californiensis M	0	0	0	800	533	0	2000
11	Acartia californiensis M	0	0	0	0	0	0	0
12	Acartia californiensis C	3667	400	0	5333	10933	2000	1067
13	Acartia californiensis N	6667	0	0	3200	22400	8333	267
62	Paracalanus parvus C	0	200	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	0	0	0	0
101	Eurytemora affinis M	0	0	0	0	0	0	0
102	Eurytemora affinis C	0	0	0	0	0	0	0
145	Sinocalanus dorii C	0	0	0	0	0	0	0
199	copepod nauplius	0	0	0	0	0	0	0
210	Dithona spp.	0	200	0	0	0	0	0
220	Corycaeus sp.	0	200	0	0	0	0	0
250	Harpacticoida	0	800	1067	0	267	533	0
280	Harpacticoid sp.A	0	0	0	0	0	0	267
333	Neomysis mercedis juv.	0	0	0	0	0	0	0
401	barnacle nauplius	0	200	0	0	267	1000	667
402	barnacle cypris	0	0	0	267	0	267	0
440	Cladocera	0	200	267	0	0	0	0
551	Engraulis mordax egg	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	0	0	0	267	0	0	20533
603	Tintinnopsis sp. B	0	0	0	0	0	0	9000
604	Tintinnid sp.C	667	0	267	0	0	0	267
630	coiled Foraminifera	0	0	0	0	0	667	0
681	flatworm sp. A	667	800	267	267	267	533	667
682	flatworm sp. B	0	200	0	0	0	267	0
700	Rotifera	0	0	0	0	0	0	0
701	Synchaeta sp.	0	200	0	0	0	667	0
740	Nematoda	0	0	0	0	0	0	0
751	Ectoprocta larva	0	200	0	0	0	0	0
801	Gastropod veliger	333	200	0	533	1067	0	533
821	Bivalvia veliger	1000	0	533	0	0	1666	0
851	polychaete trochophore	333	400	0	800	1068	333	533
855	spionid larva	1000	1600	533	1066	1600	5000	800
880	scaleworm larva	0	0	0	0	0	333	1667
						267	0	0

	Station Depth	9.0	17	5.0	1.0	10.0	15	6.0	1.0	9.0	12	5.0	1.0
Code	Name												
881	<i>Harmothoe imbricata</i>	0	0	0	0	800	0	0	0	0	0	0	0
		8	9	4		20	18	18		10	19	24	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
	140879	79226	North S.F. Bay	Polaris 64					
TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETITUS	TIDE	COUNT type
1146	9	11.0	19.6	18.3	2.7	1.5	1	0	ship
1152	9	6.0	19.6	17.9	2.0	1.3	1	0	ship
1158	9	1.0	19.8	16.2	2.7	1.1	1	0	ship
951	6	8.0	19.8	10.9	6.3	2.3	2	1	ship
957	6	4.0	19.8	10.6	6.3	1.6	3	1	ship
1003	6	1.0	19.9	11.0	7.1	1.7	2	1	ship
834	3	9.0	21.0	3.3	42.0	10.3	4	1	ship
840	3	5.0	21.0	3.2	39.5	9.0	5	1	ship
848	3	1.0	21.1	3.0	34.3	6.7	4	1	ship

Code	Name	Station	9	6	4	1	9.0	3	5.0	1.0
		Depth	11.0	6.0	1.0	8.0	4.0	1.0	9.0	1.0
7	Acartia clausi C	0	0	0	0	0	0	0	0	0
8	Acartia clausi N	0	0	0	0	0	0	0	0	0
10	Acartia californiensis F	333	1600	0	1333	0	200	0	0	0
11	Acartia californiensis M	667	2667	400	0	2600	200	0	0	0
11	Acartia californiensis M	0	0	0	0	600	0	0	0	0
12	Acartia californiensis C	4000	4267	2000	533	600	600	0	0	0
13	Acartia californiensis N	0	267	8200	1867	1200	1800	0	0	0
62	Paracalanus parvus C	0	0	0	0	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	0	0	0	0	1000	0
101	Eurytemora affinis M	0	0	0	0	0	0	333	1000	0
102	Eurytemora affinis C	0	0	0	0	0	0	1667	0	0
145	Sinocalanus dorii C	0	0	0	0	0	0	0	0	333
199	copepod nauplius	0	0	0	0	0	0	1000	667	1667
210	Oithona spp.	0	0	0	0	0	0	0	0	0
220	Corycaeus sp.	0	0	0	0	0	0	0	0	0
250	Harpacticoida	667	0	200	533	600	0	0	333	333
280	Harpacticoid sp.A	0	0	0	0	0	0	0	0	0
333	Neomysis mercedis juv.	0	0	0	0	0	0	333	333	0
401	barnacle nauplius	3333	2667	1200	3200	8400	2600	1000	0	1000
402	barnacle cypris	0	533	0	0	0	200	0	0	0
440	Cladocera	0	0	0	0	0	0	0	0	0
551	Engraulis mordax egg	333	0	200	0	0	0	0	0	0
602	Tintinnopsis sp. A	35000	14933	1800	800	800	200	0	0	0
603	Tintinnopsis sp. B	0	0	0	0	0	400	0	0	0
604	Tintinnid sp.C	0	0	0	0	0	0	0	0	0
630	coiled Foraminifera	0	0	0	0	0	0	0	0	0
681	flatworm sp. A	0	0	0	0	0	0	0	0	0
682	flatworm sp. B	0	0	0	0	0	0	0	0	0
700	Rotifers	0	533	0	0	0	0	0	0	0
701	Synchaeta sp.	0	0	0	0	0	0	0	0	0
740	Nematoda	0	0	0	0	0	0	333	0	0
751	Ectoprocta larva	0	0	0	0	0	0	0	0	0
801	Gastropod veliger	1000	533	0	0	200	0	0	0	0
821	Bivalvia veliger	667	1867	260	267	600	800	0	0	0
851	polychaete trochophore	0	0	0	0	0	0	0	0	0
855	spionid larva	0	0	0	0	0	200	0	0	0
880	scaleworm larva	0	0	0	0	400	0	0	0	0

	Station Depth	11.0	9	6.0	1.0	8.0	6	4.0	1.0	9.0	3	5.0	1.0
Code	Name	Number per cubic meter											
881	<i>Harmothoe imbricata</i>	0	0	0	0	0	0	0	0	0	0	0	0
		as Carbon per cubic meter											
		13	18	5	10	20	7			5	6	3	

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DATE 180979	JULIAN DATE 79261	LOCATION North S.F. Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETITUTS	TIDE	COUNT type
1358	17	14.0	15.9	32.4	3.5	0.7	2	-1	ship
1404	17	7.0	16.2	32.2	4.0	0.5	1	-1	ship
1410	17	1.0	17.1	31.8	4.5	0.5	1	-1	ship
1257	15	15.0	18.3	30.5	2.2	0.6	2	1	ship
1303	15	7.0	18.8	29.8	2.0	0.7	2	1	ship
1309	15	1.0	19.3	29.4	2.3	0.8	1	1	ship
1136	12	9.0	20.2	26.4	0.0	1.4	2	1	ship
1142	12	5.0	20.6	25.9	0.8	1.0	1	1	ship
1148	12	1.0	20.9	25.4	3.2	0.6	1	1	ship

	Station Depth	17	15	12	
	14.0	7.0	1.0	5.0	1.0

Code	Name	Number per cubic meter					
5	Acartia clausi F	0	0	0	0	0	0
7	Acartia clausi C	3000	533	2000	2667	1000	800
8	Acartia clausi N	333	267	9333	0	1400	0
10	Acartia californiensis F	0	0	0	0	0	1000
11	Acartia californiensis M	0	0	0	0	0	1000
12	Acartia californiensis C	2333	0	0	800	0	600
13	Acartia californiensis N	333	0	0	1333	0	4000
60	Paracalanus parvus F	333	0	0	0	0	0
61	Paracalanus parvus M	333	0	0	0	0	0
62	Paracalanus parvus C	333	0	333	0	0	0
100	Eurytemora affinis F	0	0	0	0	0	0
101	Eurytemora affinis M	0	0	0	0	0	0
102	Eurytemora affinis C	0	0	0	0	0	0
144	Sinocalanus dorii M	0	0	0	0	0	0
196	copepod nauplius A	0	0	0	267	400	600
199	copepod nauplius	0	533	1000	0	0	0
250	Harpacticoida	0	1067	1333	800	600	1200
280	Harpacticoid sp. A	0	0	0	1333	400	0
281	Harpacticoid A N	0	0	0	0	200	0
300	Amphipoda	0	0	0	0	0	0
401	barnacle nauplius	0	0	333	0	0	800
402	barnacle cypris	0	0	0	0	0	0
440	Cladocera	0	0	0	0	200	0
602	Tintinnopsis sp. A	0	0	0	0	0	333
603	Tintinnopsis sp. B	0	0	0	0	400	0
604	Tintinnid sp. C	0	533	14000	0	200	1000
681	flatworm sp. A	0	0	0	267	200	200
682	flatworm sp. B	0	0	333	0	0	0
700	Rotifera	0	0	0	0	0	1000
701	Synchaeta sp.	0	800	8333	533	0	4000
750	Ectoprocta (Bryozoa)	333	0	0	0	0	0
801	Gastropod veliger	0	533	0	267	200	0
821	Bivalvia veliger	333	533	0	533	200	1200
851	polychaete trochophore	1	0	0	0	0	0
855	spionid larva	333	267	2333	533	1000	3600
880	scaleworm larva	0	0	0	0	0	0

	µg Carbon per cubic meter					
	7	3	11	7	5	13

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
180979	79261	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL μ	EXCOF	DETritus	TIDE	COUNT
		m	C	oo/o	us/l	/m			type
1013	9	14.0	21.2	16.8	6.6	2.4	3	-1	ship
1019	9	7.0	21.2	15.0	8.1	2.2	2	-1	ship
1025	9	1.0	21.0	14.0	3.4	2.0	2	-1	ship
852	6	8.0	21.6	7.4	37.6	6.9	3	-1	ship
858	6	4.0	21.6	7.2	37.5	6.3	3	-1	ship
904	6	1.0	21.6	7.2	36.8	6.0	2	-1	ship
743	3	8.0	21.8	3.6	26.7	7.2	4	-1	ship
749	3	5.0	21.8	3.6	26.5	6.5	4	-1	ship
755	3	1.0	21.8	3.2	23.4	6.2	3	-1	ship

Code	Name	Station Depth	14.0	9	7.0	1.0	8.0	6	4.0	1.0	8.0	5.0	3	1.0
5	Acartia clausi F		0	0	0	0	0	667	0	0	0	0	0	0
7	Acartia clausi C		0	0	0	0	0	333	0	0	0	0	0	0
8	Acartia clausi N		0	0	0	0	0	0	0	0	0	0	0	0
10	Acartia californiensis F	1600	3000	0	0	0	0	333	0	0	0	0	0	0
11	Acartia californiensis M	1067	1667	0	0	0	0	0	0	0	0	0	0	0
12	Acartia californiensis C	4533	12667	800	267	0	0	0	0	0	0	0	0	0
13	Acartia californiensis N	1067	4000	4000	0	0	0	0	0	0	0	0	0	0
60	Paracalanus parvus F	0	0	0	0	0	0	0	0	0	0	0	0	0
61	Paracalanus parvus M	0	0	0	0	0	0	0	0	0	0	0	0	0
62	Paracalanus parvus C	0	0	0	0	0	0	0	0	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	800	0	0	0	0	0	333	0	0	0
101	Eurytemora affinis M	0	0	0	0	0	0	0	0	0	333	556	0	0
102	Eurytemora affinis C	0	0	0	0	1067	0	0	0	0	1000	278	0	0
144	Sinocalanus dorii M	0	0	0	0	0	0	0	0	0	0	278	0	0
196	copepod nauplius A	0	0	0	0	0	0	0	0	0	0	0	0	0
199	copepod nauplius	0	0	0	0	1067	1000	0	0	333	0	267	0	0
250	Harpacticoida	0	0	200	0	0	1000	267	0	333	0	267	0	0
280	Harpacticoid sp.A	0	0	0	0	0	0	0	0	0	0	0	0	0
281	Harpacticoid A N	0	0	0	0	0	0	0	0	0	0	0	0	0
300	Amphipoda	267	0	0	0	0	0	0	0	0	0	0	0	0
401	barnacle nauplius	267	1667	1000	5073	1333	1333	1333	1667	556	533	0	0	0
402	barnacle cypris	0	0	0	0	0	0	0	0	0	0	800	0	0
440	Cladocera	0	0	0	0	0	0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	2933	6667	400	0	333	0	0	0	0	0	0	0	0
603	Tintinnopsis sp. B	0	0	200	0	0	0	0	0	0	0	0	0	0
604	Tintinnid sp.C	0	0	0	0	0	0	0	0	0	0	0	0	0
681	flatworm sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0
682	flatworm sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0
700	Rotifers	0	0	200	0	0	0	0	0	0	0	0	0	0
701	Synchaeta sp.	0	0	0	0	267	0	0	0	0	0	0	0	0
750	Ectoprocta (Bryozoa)	0	0	0	0	0	0	0	0	0	0	0	0	0
801	Gastropod veliger	0	0	0	0	0	333	0	0	0	0	0	0	0
821	Rivalvia veliger	267	333	0	0	0	0	0	0	0	0	0	0	0
851	polychaete trochophore	0	0	0	0	0	0	0	0	0	0	0	0	0
855	spionid larva	0	333	0	0	0	0	0	0	0	0	0	0	267
880	scaleworm larva	0	0	0	0	0	333	0	0	0	0	0	0	0

					as Carbon per cubic meter				
11	25	3			12	7	2		
					6	4	3		

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DATE 90180	JULIAN DATE 80009	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64	TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETITUTUS	TIDE	COUNT type
736	17	7.0	11.9	29.7	0.6	0.9	0	-1	ship					
742	17	4.0	11.9	29.7	0.6	0.9	0	-1	ship					
748	17	1.0	11.3	25.4	0.6	0.7	0	-1	ship					
905	15	9.0	11.4	26.2	0.4	1.0	0	-1	ship					
912	15	5.0	10.8	20.6	0.4	1.1	0	-1	ship					
919	15	1.0	10.5	15.9	0.4	1.3	0	-1	ship					
1024	13	9.0	11.3	24.8	0.7	1.1	0	-1	ship					
1031	13	5.0	11.2	23.6	0.8	0.9	0	-1	ship					
1038	13	1.0	10.6	16.8	0.8	1.1	0	-1	ship					
		Station Depth	7.0	17 4.0	1.0	9.0	15 5.0	1.0	9.0	13 5.0	1.0			
Code	Name													Number per cubic meter
5	Acartia clausi F		285	0	0	917	9400	5200	800	533	587			
6	Acartia clausi M		800	0	0	250	2200	0	667	533	293			
7	Acartia clausi C		2000	400	100	917	4400	4000	4733	7067	1613			
8	Acartia clausi N		0	0	0	417	3200	3600	8067	6000	21413			
10	Acartia californiensis F		115	0	0	0	0	0	0	0	0			
28	Tortanus discaudatus M		0	0	0	0	0	0	0	1	0			
30	Calanus pacificus F		0	0	0	0	0	0	0	3	0			
31	Calanus pacificus M		0	0	0	0	0	1	0	5	1			
32	Calanus pacificus C		1	0	0	0	0	0	0	2	1			
60	Paracalanus parvus F		600	100	33	83	0	0	67	0	0			
61	Paracalanus parvus M		600	0	0	0	0	0	0	0	0			
62	Paracalanus parvus C		600	0	0	83	0	0	400	400	0			
63	Paracalanus parvus N		0	0	0	0	600	0	0	0	0			
70	Pseudocalanus sp. A F		0	2	0	0	0	0	0	0	0			
100	Eurytemora affinis F		0	0	0	0	0	0	0	0	0			
101	Eurytemora affinis M		0	0	0	0	0	0	0	0	0			
102	Eurytemora affinis C		0	0	0	0	0	0	0	0	0			
103	Eurytemora affinis N		0	0	0	0	0	0	0	0	0			
143	Sinocalanus dori F		0	0	0	0	0	0	0	0	0			
144	Sinocalanus dori M		0	0	0	0	0	0	0	0	0			
145	Sinocalanus dori C		0	0	0	0	0	0	0	0	0			
191	Epilabidocera longipedata M		0	0	0	0	0	0	0	2	0			
192	Epilabidocera longipedata C		0	0	0	0	0	0	0	1	0			
195	copepod nauplius D		400	0	0	0	0	0	0	0	0			
196	copepod nauplius A		0	0	33	0	0	0	0	0	0			
197	copepod nauplius B		0	0	0	0	0	0	0	0	133			
198	copepod nauplius C		0	0	0	0	0	0	0	0	0			
199	copepod nauplius		0	0	0	0	0	0	0	0	0			
200	Cyclopoida		0	0	0	0	0	0	0	0	0			
210	Oithona spp.		1200	100	100	0	600	400	0	0	400			
213	Oithona spinirostris		0	100	0	0	0	0	0	0	0			
220	Corixaeus sp.		0	1	0	0	200	0	0	0	0			
250	Harpacticoids		4400	500	67	83	800	0	200	0	267			
270	Microsetella sp.		0	100	1	0	0	0	0	0	0			
300	Amphipoda		0	0	0	0	0	0	0	1	0			
331	Mysid Juvenile		0	0	0	0	0	1	0	0	0			
340	Reptantia zoea		0	1	0	0	0	0	0	0	1			

Code	Name	Station Depth	7.0	17	1.0	9.0	15	1.0	9.0	13	5.0	1.0
345	Grapsid zoea	0	0	2	1	200	0	0	0	0	0	0
375	Caridean zoea	0	1	0	2	1	0	0	1	0	0	0
401	barnacle nauplius	0	0	33	0	200	1200	0	0	0	0	0
420	Ostracoda	0	0	0	0	0	0	0	0	0	0	0
440	Cladocera	0	0	0	0	0	0	0	0	0	0	0
520	Chaetognatha	0	1	0	0	3	0	0	0	0	0	0
521	Sagitta spp.	1	0	0	0	0	0	0	3	0	0	0
560	fish larva	0	0	0	1	2	0	0	3	0	0	0
570	Gobiidae larva	0	0	0	0	0	0	0	0	0	0	0
581	Clupea harengus	3	7	0	9	3	0	0	3	8	0	0
602	Tintinnopsis sp. A	0	100	33	0	0	400	67	0	0	0	0
603	Tintinnopsis sp. B	0	0	0	0	2000	0	10667	4256	0	0	0
605	Eutintinnus neriticus	0	0	0	0	200	400	0	0	0	0	0
660	Hydrozoa	0	0	0	0	1	0	0	1	0	0	0
666	Polyorchis spp.	0	0	0	0	0	0	0	1	2	0	0
681	flatworm sp. A	0	1	33	0	0	0	0	0	0	0	0
682	flatworm sp. B	0	0	0	0	0	0	0	0	0	0	0
700	Rotifera	0	0	0	0	0	0	0	0	0	0	0
701	Synchaeta spp.	0	0	0	0	0	0	0	67	0	0	0
740	Nematoda	0	0	0	0	0	0	0	0	0	0	0
750	Ectoprocta (Bryozoa)	400	200	1200	3583	400	0	333	133	0	0	0
801	Gastropod veliger	0	0	0	0	0	0	0	0	1	0	0
821	Bivalvia veliger	1600	300	0	167	6600	400	200	667	0	0	0
855	spionid larva	0	0	33	0	400	0	0	0	0	0	0
880	scaleworm larva	0	0	0	167	0	0	0	0	0	0	0
901	Insecta	0	0	0	0	0	0	0	0	0	0	0
mg Carbon per cubic meter												
		14	1	0	4	38	20	9	10	5		

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Code	Name	Station Depth	10.0	9	5.0	1.0	6.0	6	3.0	1.0	9.0	9	5.0	3	1.0
345	Grapsid zoea		0	0	0	0	0	0	0	0	0	0	0	0	0
375	Caridean zoea		0	0	0	0	0	0	0	0	0	0	0	0	0
401	barnacle nauplius		0	0	0	0	0	0	0	0	0	0	0	0	0
420	Ostracoda		0	0	0	0	0	100	0	0	100	100	0	0	0
440	Cladocera		0	0	0	0	67	100	0	0	100	0	0	133	0
520	Chaetognatha		0	0	0	0	0	0	0	0	0	0	0	0	0
521	Sasitta spp.		0	0	0	0	0	0	0	0	0	0	0	0	0
560	fish larva		0	0	0	0	0	0	0	0	0	0	0	0	0
570	Gobiidae larva		0	0	0	0	0	0	0	0	0	0	0	0	0
581	Clupea harengus		0	0	0	0	0	0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A		0	0	0	0	0	0	0	0	0	0	0	0	0
603	Tintinnopsis sp. B	2000	1667	0	0	0	0	0	0	0	0	0	0	0	0
605	Eutintinnus neriticus		0	0	0	0	0	0	0	0	0	0	0	0	0
660	Hydrozoa		0	0	0	0	0	0	0	0	0	0	0	0	0
666	Polyorchis sp.		0	0	0	0	0	0	0	0	0	0	0	0	0
681	flatworm sp. A		0	0	0	0	0	0	0	0	0	0	0	0	0
682	flatworm sp. B		0	0	0	0	667	0	0	0	0	0	0	0	0
700	Rotifera		0	0	0	0	0	100	0	0	300	0	0	133	0
701	Synchaeta sp.		0	0	0	0	0	0	0	0	0	0	0	0	0
740	Nematoda		0	0	0	0	0	100	0	0	0	0	0	0	0
750	Ectoprocta (Bryozoa)		0	0	0	0	0	0	0	0	0	0	0	0	0
801	Gastropod veliger		0	0	0	0	0	0	0	0	0	0	0	0	0
821	Bivalvia veliger	1	0	0	0	0	0	0	0	0	0	0	0	0	0
855	spionid larva		0	0	0	0	0	0	0	0	0	0	0	0	0
880	scaleworm larva		0	0	0	0	0	0	0	0	0	0	0	0	0
901	Insecta		0	0	0	0	0	0	0	0	100	0	0	0	0
mg Carbon per cubic meter															
			3	3	3		21	4	1		3	1		1	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
90180	80009	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	oo/o	us/l	/m			type
1737	657	5.0	9.7	0.1	0.8	2.8	1	1	ship
1743	657	1.0	9.7	0.1	0.8	2.8	1	1	ship

Station
Depth 657
 5.0 1.0

Code	Name	Number per cubic meter	
5	Acartia clausi F	0	0
6	Acartia clausi M	0	0
7	Acartia clausi C	0	0
8	Acartia clausi N	0	0
10	Acartia californiensis F	0	0
28	Tortanus discudatus M	0	0
30	Calanus Pacificus F	0	0
31	Calanus Pacificus M	0	0
32	Calanus Pacificus C	0	0
60	Paracalanus parvus F	0	0
61	Paracalanus parvus M	0	0
62	Paracalanus parvus C	0	0
63	Paracalanus parvus N	0	0
70	Pseudocalanus sp. A F	0	0
100	Eurytemora affinis F	0	0
101	Eurytemora affinis M	0	0
102	Eurytemora affinis C	0	0
103	Eurytemora affinis N	0	0
143	Sinocalanus dorii F	0	44
144	Sinocalanus dorii M	0	0
145	Sinocalanus dorii C	0	0
191	Epilabidocera longispedata M	0	0
192	Epilabidocera longispedata C	0	0
195	copepod nauplius D	0	0
196	copepod nauplius A	0	0
197	copepod nauplius B	0	0
198	copepod nauplius C	0	0
199	copepod nauplius	5267	5016
200	Cyclopoida	0	176
210	Oithona spp.	0	0
213	Oithona spinirostris	0	0
220	Corycaeus sp.	0	0
250	Harpacticida	600	440
270	Microsetella sp.	0	0
300	Amphipoda	0	0
331	Mysid Juvenile	0	0
340	Reptantia zoea	0	0
345	Graepid zoea	0	0
375	Caridean zoea	0	0
401	barnacle nauplius	0	0
420	Ostracoda	0	0
440	Cladocera	0	176
520	Chaetognatha	0	0
521	Sagitta spp.	0	0

Code	Name	Station Depth	657 5.0	1.0	Number per cubic meter
560	fish larva		0	0	
570	Gobiidae larva		0	0	
581	Clupea harengus		0	0	
602	Tintinnopsis sp., A		0	0	
603	Tintinnopsis sp., B		0	0	
605	Eutintinnus neriticus		0	0	
660	Hydrozoa		0	0	
666	Polysorchis sp.		0	0	
681	flatworm sp., A		0	0	
682	flatworm sp., B		0	0	
700	Rotifera		0	44	
701	Synchaeta sp.		0	0	
740	Nematoda		0	88	
750	Ectoprocta (Bryozoa)		0	0	
801	Gastropod veliger		0	0	
821	Bivalvia veliger		0	0	
855	spionid larva		0	0	
880	scaleworm larva		0	0	
901	Insecta		67	44	

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
90180	80009	North S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a µg/l	EXCOF /m	DETРИTUS	TIDE	COUNT type
805	302	2.0	10.4	15.7	0.7	1.5	0	-1	ship
830	306	3.0	10.9	11.1	0.7	1.9	0	-1	ship
900	312	2.0	10.4	11.3	2.0	2.7	0	0	ship

Station	302	306	312
Depth	2.0	3.0	2.0

Code	Name	Number per cubic meter
5	Acartia clausi F	146
6	Acartia clausi M	439
7	Acartia clausi C	146
8	Acartia clausi N	1171
30	Calanus pacificus F	0
31	Calanus pacificus M	0
32	Calanus pacificus C	0
61	Paracalanus parvus M	0
62	Paracalanus parvus C	2
100	Eurytemora affinis F	1
101	Eurytemora affinis M	1
102	Eurytemora affinis C	0
103	Eurytemora affinis N	0
143	Sinocalanus dorii F	0
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	0
191	Epilabidocera longipedata M	1
192	Epilabidocera longipedata C	0
199	copepod nauplius	0
200	Cyclopoida	0
210	Oithona spp.	0
250	Harpacticoida	0
321	Isopoda imm.	0
331	Mysid juvenile	0
345	Grapsid zoea	0
375	Caridean zoea	1
401	barnacle nauplius	0
520	Chaetognatha	0
560	fish larva	0
581	Clupea harengus	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	26046
605	Eutintinnus neriticus	0
700	Rotifera	0
801	Gastropod veliger	0
821	Bivalvia veliger	7

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
90180	80009	North S.F.Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF #/m	DETritus	TIDE	COUNT type
930	318	2.0	10.3	11.3	1.6	2.7	0	1	ship
1010	324	1.0	10.2	11.2	1.4	2.5	1	1	ship
1055	334	2.0	10.6	13.9	0.5	1.9	0	-1	ship

	Station	318	324	334
	Depth	2.0	1.0	2.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	439	1024	585
6	Acartia clausi M	878	615	468
7	Acartia clausi C	5926	615	1054
8	Acartia clausi N	2195	0	117
30	Calanus Pacificus F	0	0	0
31	Calanus Pacificus M	0	0	0
32	Calanus Pacificus C	0	0	0
61	Paracalanus Parvus M	0	0	0
62	Paracalanus Parvus C	0	0	0
100	Eurytemora affinis F	25	102	0
101	Eurytemora affinis M	23	307	0
102	Eurytemora affinis C	8	307	117
103	Eurytemora affinis N	0	0	0
143	Sinocalanus dorii F	0	0	0
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	0
191	Epilabidocera longispedata M	0	0	0
192	Epilabidocera longispedata C	0	0	0
199	copepod nauplius	0	512	0
200	Cyclopoida	0	102	0
210	Oithona spp.	0	0	0
250	Harpacticoida	0	0	0
321	Isopoda imm.	0	0	0
331	Mysid Juvenile	2	0	0
345	Grapsid zoea	0	0	0
375	Caridean zoea	0	0	0
401	barnacle nauplius	0	0	0
520	Chaetognatha	0	0	0
560	fish larva	0	0	0
581	Clupea harengus	0	0	0
602	Tintinnopsis sp. A	0	0	117
603	Tintinnopsis sp. B	51800	15364	32192
605	Eutintinnus neriticus	0	0	0
700	Rotifera	0	0	0
801	Gastropod veliger	0	0	0
821	Bivalvia veliger	0	0	0

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
90180	80009	North S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1328	404	5.0	10.0	3.0	0.9	5.0	1	-1	ship
1415	414	2.0	9.7	0.5	1.9	6.2	1	0	ship
1445	418	2.0	10.0	0.2	2.4	5.3	0	0	ship

Station Depth	404 5.0	414 2.0	418 2.0
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Code	Name	Number per cubic meter		
5	Acartia clausi F	132	0	0
6	Acartia clausi M	0	0	0
7	Acartia clausi C	0	0	0
8	Acartia clausi N	0	0	0
30	Calanus Pacificus F	0	0	0
31	Calanus Pacificus M	0	0	0
32	Calanus Pacificus C	0	0	0
61	Paracalanus parvus M	0	0	0
62	Paracalanus parvus C	0	0	0
100	Eurytemora affinis F	0	293	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	395	732	3585
103	Eurytemora affinis N	0	0	0
143	Sinocalanus dorii F	0	0	0
144	Sinocalanus dorii M	0	0	146
145	Sinocalanus dorii C	0	0	0
191	Epilabidocera longispedata M	0	0	0
192	Epilabidocera longispedata C	0	0	0
199	Copepod nauplius	2239	732	4756
200	Cyclopoida	395	0	439
210	Oithona spp.	0	293	0
250	Harpacticoida	0	0	73
321	Isopoda imm.	0	0	0
331	Mysid Juvenile	0	0	0
345	Grapsid zoea	0	0	0
375	Caridean zoea	0	0	0
401	barnacle nauplius	132	0	0
520	Chaetognatha	0	0	0
560	fish larva	0	0	0
581	Clupea harengus	0	0	0
602	Tintinnopsis sp. A	0	0	0
603	Tintinnopsis sp. B	1580	0	1463
605	Eutintinnus neriticus	0	0	0
700	Rotifera	0	0	73
801	Gastropod veliger	0	0	0
821	Bivalvia veliger	0	0	0

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
90180	80009	North S.F.Bay	Estero	64					
TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
1720	757	2.0	9.3	0.0	0.2	3.7	1	1	ship

Station
Depth

757
2.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
30	Calanus Pacificus F	0
31	Calanus Pacificus M	0
32	Calanus Pacificus C	0
61	Paracalanus Parvus M	0
62	Paracalanus Parvus C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
103	Eurytemora affinis N	0
143	Sinocalanus dorii F	345
144	Sinocalanus dorii M	173
145	Sinocalanus dorii C	0
191	Epilabidocera longipedata M	0
192	Epilabidocera longipedata C	0
199	copepod nauplius	345
200	Cyclopoida	0
210	Dithona spp.	0
250	Harpacticoids	0
321	Isopoda imm.	0
331	Mysid juvenile	0
345	Grapsid zoea	0
375	Caridean zoea	0
401	barnacle nauplius	0
520	Chaetognatha	0
560	fish larva	0
581	Clupea harengus	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
700	Rotifera	0
801	Gastropod veliger	0
821	Bivalvia veliger	0

µg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
240180	80024	North S.F. Bay	Polaris	64					
TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETITUTUS	TIDE	COUNT
		m	°C	oo/o	ug/l	/m			type
737	19	13.0	12.4	25.9	0.3	0.6	1	0	ship
745	19	6.0	11.9	23.6	0.3	0.6	0	0	ship
918	17	10.0	11.0	16.3	0.4	1.2	0	-1	ship
948	17	5.0	10.3	11.6	0.5	1.8	0	-1	ship
954	17	1.0	10.0	8.5	0.5	2.6	0	-1	ship
1108	15	9.0	10.6	12.4	0.6	8.0	0	-1	ship
1114	15	4.0	9.9	6.8	0.5	3.8	0	-1	ship
1120	15	1.0	9.9	6.8	0.4	3.0	0	-1	ship

Code	Name	Station	19	17	15				
		Depth	13.0	6.0	5.0	1.0	9.0	4.0	1.0
5	Acartia clausi F		667	133	0	133	0	0	67
6	Acartia clausi M		0	267	0	0	0	0	0
7	Acartia clausi C		1200	667	267	133	0	133	67
8	Acartia clausi N		400	0	0	0	0	267	0
60	Paracalanus parvus F		0	1	0	0	0	0	0
62	Paracalanus parvus C		133	0	0	133	0	0	0
100	Eurtemora affinis F		0	0	0	0	0	0	67
101	Eurtemora affinis M		0	0	0	0	0	267	0
102	Eurtemora affinis C		0	0	267	0	133	133	0
192	Epilabidocera longispedata C		133	0	0	0	0	0	0
199	copepod nauplius		0	1200	1333	1467	4400	4267	1733
200	Cyclopoida		0	0	133	0	800	267	0
220	Corscaeus sp.		133	400	0	0	0	0	0
250	Harpacticoids		267	0	0	0	0	533	467
260	Sapphirina spp.		0	0	0	0	0	0	933
270	Microsetella sp.		133	0	0	0	0	0	0
300	Amphipoda		4	0	0	0	0	0	0
320	Isopoda		1	0	0	0	0	0	0
331	Mysid juvenile		1	0	0	0	0	0	0
332	Neomysis mercedis		0	0	0	0	0	0	0
340	Reptantia zoes		1	0	0	0	0	0	0
370	Natantia zoes		1	0	0	0	0	0	0
401	barnacle nauplius		0	0	0	0	0	0	0
440	Cladocera		0	0	0	0	0	0	133
601	tintinnid spp.		0	0	0	0	0	0	0
603	Tintinnopsis sp. B		0	0	0	0	133	28000	10667
605	Eutintinnus neriticus		0	0	0	0	0	0	0
666	Polycharis sp.		1	0	0	0	0	0	0
682	flatworm sp. B		0	133	0	0	0	0	0
700	Rotifera		0	0	0	0	0	0	0
740	Nematoda		0	0	0	0	0	0	0
751	Ectoprocta larva		0	400	133	0	0	0	0
801	Gastropod veliger		133	0	0	0	0	0	0
821	Bivalvia veliger		0	400	0	267	267	133	133
851	Polychaete trochophore		133	0	0	0	0	0	0
855	spionid larva		133	0	0	0	0	0	0
880	scaleworm larva		133	0	0	0	0	0	0
899	pelagic polychaete		1	0	0	0	0	0	0

	Station Depth	13.0	19	6.0	10.0	17	5.0	1.0	9.0	15	4.0	1.0
Code	Name	Number per cubic meter										
905	Chironomidae larva	0	0	0	0	0	0	0	0	0	0	0
		mg Carbon per cubic meter										
		6	2	1	1	3	3	1	2			

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DATE 240180	JULIAN DATE 80024	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETITUS	TIDE	COUNT type
1221	13	9.0	11.2	15.8	0.6	7.1	0	-1	ship
1227	13	5.0	10.3	9.4	0.5	3.4	0	-1	ship
1233	13	1.0	10.0	5.8	0.6	4.8	0	-1	ship
1418	9	10.0	9.1	0.1	0.7	10.3	5	-1	ship
1424	9	5.0	9.1	0.1	0.7	10.3	5	-1	ship
1430	9	1.0	9.1	0.1	0.7	10.5	5	-1	ship

Station Depth	9.0	13	5.0	1.0	10.0	9	5.0	1.0
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Code	Name	Number per cubic meter						
5	Acartia clausi F	467	67	0	0	0	0	0
6	Acartia clausi M	533	67	0	0	0	0	0
7	Acartia clausi C	3200	1667	67	0	0	0	0
8	Acartia clausi N	800	1133	0	0	0	0	0
60	Paracalanus parvus F	0	0	0	0	0	0	0
62	Paracalanus parvus C	67	0	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	1	17	0	0
101	Eurytemora affinis M	0	0	0	0	0	0	0
102	Eurytemora affinis C	133	0	400	1	0	0	0
192	Epilabidocera longispedata C	0	0	0	0	0	0	0
199	copepod nauplius	600	67	1533	0	17	0	0
200	Cyclopoida	0	67	67	0	0	0	0
220	Corycaeus sp.	0	0	0	0	0	0	0
250	Harpacticoida	0	333	333	0	0	0	3
260	Sapphirina spp.	200	0	0	0	0	0	0
270	Microsetella sp.	0	0	0	0	0	0	0
300	Amphipoda	0	0	0	0	0	0	0
320	Isopoda	0	0	0	0	0	0	0
331	Mysid juvenile	0	0	0	0	0	0	0
332	Neomysis merceris	0	0	0	0	1	0	0
340	Reptantia zoea	0	0	0	0	0	0	0
370	Natantia zoea	0	0	0	0	0	0	0
401	barnacle nauplius	0	133	0	0	0	0	0
440	Cladocera	0	0	67	0	50	1	0
601	tintinnid spp.	0	0	67	0	0	0	0
603	Tintinnopsis sp. B	45333	35333	10000	0	0	0	0
605	Eutintinnus neriticus	0	0	0	0	0	0	0
666	Polyorchis sp.	0	0	0	0	0	0	0
682	flatworm sp. B	0	0	0	0	0	0	0
700	Rotifera	67	0	0	0	417	16	0
740	Nematoda	0	0	0	0	17	0	0
751	Ectoprocta larva	0	0	0	0	0	0	0
801	Gastropod veliger	0	0	0	0	0	0	0
821	Rivalvia veliger	133	0	67	0	0	0	0
851	polychaete trochophore	0	0	0	0	0	0	0
855	spionid larva	0	0	0	0	0	0	0
880	scaleworm larva	0	0	0	0	0	0	0
899	pelagic polychaete	0	0	0	0	0	0	0
905	Chironomidae larva	0	0	0	3	1	0	0

mg Carbon per cubic meter						
6	3	1	0	0	0	0

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Code	Name	Station	Depth	13.0	19	1.0	10.0	17	5.0	1.0	14.0	15	7.0	1.0
950	Anocystis sp.			0	0	0	0	0	0	0	0	0	0	0
				13	9	3	14	20	5	5	11	1		

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DATE 60280	JULIAN DATE 80037	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64					
TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1142	13	9.0	11.5	21.4	0.7	2.6	1	-1	ship
1148	13	5.0	10.8	14.7	0.9	1.6	0	-1	ship
1154	13	1.0	10.5	11.1	1.1	2.1	0	-1	ship
1325	9	14.0	9.9	7.5	1.2	3.8	1	0	ship
1331	9	7.0	9.4	2.5	1.2	4.3	1	0	ship
1337	9	1.0	9.4	1.3	1.2	3.9	1	0	ship
1444	6	9.0	9.5	0.1	0.9	4.3	1	1	ship
1450	6	5.0	9.2	0.1	0.9	4.2	1	1	ship
1456	6	1.0	9.2	0.1	0.9	4.0	1	1	ship

Code	Name	Station Depth	9.0	13	1.0	14.0	7.0	9	1.0	9.0	6	5.0	1.0
950	Anocystis sp.		0	0	0	0	1	1	0	1	1		
			2	8	7	17	3	4	1	0	1		

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ESTUARINE STUDIES GROUP
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
60280	80037	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETritus	TIDE	COUNT type
1546	4	7.0	9.1	0.1	0.9	4.1	2	1	ship
1552	4	4.0	9.2	0.1	0.9	3.9	2	1	ship
1558	4	1.0	10.0	0.1	0.9	4.1	2	1	ship
1749	657	1.5	9.2	0.1	1.4	4.4	1	0	ship

	Station Depth	4 7.0	4 4.0	1.0	657 1.5
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Code	Name	Number per cubic meter		
5	Acartia clausi F	0	0	0
6	Acartia clausi M	0	0	0
7	Acartia clausi C	0	0	0
8	Acartia clausi N	0	0	0
29	Tortanus discaudatus C	0	0	0
36	Calanus tenuicornis C	0	0	0
60	Paracalanus parvus F	0	0	0
62	Paracalanus parvus C	0	0	0
100	Eurtemora affinis F	0	0	0
101	Eurtemora affinis M	0	0	0
102	Eurtemora affinis C	0	0	0
103	Eurtemora affinis N	0	0	0
143	Sinocalanus dorii F	0	0	0
145	Sinocalanus dorii C	0	0	0
199	copepod nauplius	22	22	22
200	Cyclopoida	22	22	22
210	Oithona spp.	0	0	0
213	Oithona spinirostris	0	0	0
220	Corycaeus sp.	0	0	0
250	Harpacticoida	267	267	267
270	Microsetella sp.	0	0	0
280	Harpacticoid sp.A	0	0	0
321	Isopoda imm.	0	0	0
350	Xanthid zoea	0	0	0
360	Pinnotherid zoea	0	0	0
370	Natantia zoea	0	0	0
401	barnacle nauplius	0	0	0
440	Cladocera	155	155	155
520	Chaetognatha	0	0	0
603	Tintinnopsis sp. B	0	0	0
605	Eutintinnus neriticus	0	0	0
700	Rotifera	89	89	89
705	Keratella sp.	155	155	155
750	Ectoprocta (Bryozoa)	0	0	0
821	Bivalvia veliger	0	0	0
855	spionid larva	0	0	0
905	Chironomidae larva	1	1	1

mg Carbon per cubic meter

1 1 1 1

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
60280	80037	North S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
815	302	1.0	11.0	12.7	0.6	3.0	0	-1	ship
900	312	1.0	10.6	4.5	1.4	4.9	0	-1	ship
950	318	1.0	10.8	4.0	2.0	3.3	0	-1	ship

Station Depth	302 1.0	312 1.0	318 1.0
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Code	Name	Number per cubic meter
5	Acartia clausi F	430
7	Acartia clausi C	2000
8	Acartia clausi N	1867
62	Paracalanus parvus C	133
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
103	Eurytemora affinis N	0
143	Sinocalanus dorii F	0
145	Sinocalanus dorii C	0
199	copepod nauplius	10667
200	Cyclopoida	0
210	Oithona spp.	133
250	Harpacticoida	0
440	Cladocera	0
560	fish larva	0
601	tintinnid spp.	0
603	Tintinnopsis sp. B	13867
700	Rotifera	6667
701	Synchaeta spp.	0
705	Keratella spp.	0

mg Carbon per cubic meter

3 7 3

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
60280	80037	North S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
1030	324	0.5	11.1	4.1	3.2	2.1	0	0	ship
1120	334	1.0	11.0	9.1	1.0	3.0	0	-1	ship
1430	404	5.0	10.2	0.2	0.9	4.0	1	1	ship

Station	324	334	404
Depth	0.5	1.0	5.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
7	Acartia clausi C	0
8	Acartia clausi N	0
62	Paracalanus parvus C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	1467
103	Eurytemora affinis N	12933
143	Sinocalanus dorii F	133
145	Sinocalanus dorii C	0
199	copepod nauplius	0
200	Cyclopoida	0
210	Oithona spp.	266
250	Harpacticoida	133
440	Cladocera	0
560	fish larva	0
601	tintinnid spp.	0
603	Tintinnopsis sp. B	53333
700	Rotifera	0
701	Synchaeta sp.	133
705	Keratella sp.	0

mg Carbon per cubic meter

6 4 2

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
60280	80037	North S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETritus	TIDE	COUNT type
1530	418	1.5	9.8	0.1	0.8	4.0	1	0	ship
1630	438	1.0	9.9	0.1	0.5	2.6	3	1	ship
1750	757	5.0	9.6	0.1	0.5	-	3	1	ship

Station Depth	418	438	757
	1.5	1.0	5.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
7	Acartia clausi C	0
8	Acartia clausi N	0
62	Paracalanus parvus C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	200
103	Eurytemora affinis N	0
143	Sinocalanus dorii F	0
145	Sinocalanus dorii C	0
199	copepod nauplius	67
200	Cyclopoida	133
210	Oithona spp.	0
250	Harpacticoida	533
440	Cladocera	67
560	fish larva	0
601	tintinnid spp.	67
603	Tintinnopsis sp. B	0
700	Rotifera	867
701	Synchaeta spp.	0
705	Keratella spp.	0

	mg Carbon per cubic meter	
1	1	0

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DATE 50380	JULIAN DATE 80065	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64	TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF #/m	DETritus	TIDE	COUNT type
802	17	14.0	13.3	21.4	0.8	1.7	1	1						ship
817	17	7.0	13.2	15.1	0.8	1.5	1	1						ship
823	17	1.0	13.0	11.3	1.0	1.6	1	1						ship
1012	15	14.0	13.2	19.3	1.0	6.0	2	1						ship
1018	15	7.0	12.8	9.1	0.8	2.5	0	1						ship
1024	15	1.0	12.7	1.9	1.0	5.3	0	1						ship
1154	13	10.0	13.3	10.0	0.7	2.2	1	1						ship
1200	13	5.0	12.9	8.5	0.7	2.1	0	1						ship
1206	13	1.0	13.1	4.1	0.8	3.4	0	1						ship
		Station Depth	14.0	17										
			14.0	7.0	1.0	14.0	7.0	1.0	10.0	10.0	10.0	10.0	10.0	
Code	Name													Number per cubic meter
5	Acartia clausi F		1125	600	0	2933	0	0	5800	333	0			
6	Acartia clausi M		563	400	0	2400	0	0	1000	0				
7	Acartia clausi C		4500	800	100	2933	200	0	6400	167	0			
8	Acartia clausi N		1312	200	0	2400	400	0	3400	0	0			
28	Tortanus discaudatus M		0	0	0	267	0	0	0	0	0			
36	Calanus tenuicornis C		0	200	0	0	0	0	0	0	0			
60	Paracalanus parvus F		188	0	0	267	0	0	0	0	0			
61	Paracalanus parvus M		188	0	0	0	0	0	0	0	0			
62	Paracalanus parvus C		2250	200	0	533	0	0	0	0	0			
100	Eurytemora affinis F		0	0	0	0	0	0	200	0	0			
101	Eurytemora affinis M		0	0	0	0	0	0	200	167	0			
102	Eurytemora affinis C		188	0	0	0	0	400	1400	167	400			
143	Sinocalanus dorii F		0	0	0	0	0	0	0	0	0			
145	Sinocalanus dorii C		0	0	0	0	0	200	100	833	0			
194	copepodite (unknown)		0	0	0	0	0	0	0	167	0			
197	copepod nauplius R		188	0	0	533	0	0	200	0	0			
198	copepod nauplius C		0	0	0	0	400	0	0	0	0			
199	copepod nauplius		0	2200	600	0	4800	4000	0	16667	4800			
200	Cyclopoida		0	600	200	267	600	1000	800	500	800			
210	Oithona spp.		188	0	0	0	0	0	200	0	0			
220	Corycaeus sp.		188	0	0	267	0	0	0	0	0			
250	Harpacticoida		375	200	0	267	0	0	0	333	0			
270	Microsetella sp.		0	0	0	0	600	0	0	167	0			
281	Harpacticoid A N		188	0	0	0	0	0	0	0	0			
321	Isopoda imm.		0	200	0	0	0	0	0	0	0			
332	Neomysis mercedis		0	0	0	0	0	0	200	0	0			
355	Cancer zoea		188	0	0	267	0	0	0	0	0			
370	Natantia zoea		188	0	0	0	0	0	0	0	0			
391	euphausid nauplius		375	0	0	0	0	0	0	0	0			
401	barnacle nauplius		0	200	0	0	0	0	0	0	0			
402	barnacle cypris		188	0	0	0	0	0	0	0	0			
440	Cladocera		0	0	0	0	0	0	200	0	0			
570	Gobiidae larva		0	1	0	0	0	0	0	0	0			
602	Tintinnopsis sp. A		0	0	0	0	0	0	0	0	0			
603	Tintinnopsis sp. B		16125	11400	2900	4000	13400	17000	85000	70833	10000			
605	Eutintinnus neriticus		188	0	0	0	0	0	0	0	0			
682	flatworm sp. B		375	0	0	0	0	0	0	0	0			

Code	Name	Station	14.0	17	7.0	1.0	14.0	15	7.0	1.0	10.0	13	5.0	1.0
		Depth												
Number per cubic meter														
700	Rotifers		0	0	0	0	0	0	0	0	167	0		
701	Synchaeta sp.		0	0	0	0	0	0	0	0	333	0		
702	Synchaeta sp. ess		188	0	0	0	0	0	0	0	167	0		
740	Nematoda		0	0	0	0	0	0	0	0	0	0		
821	Bivalvia veliger		3000	2200	200	1333	400	0	0	0	0	0		
855	spionid larva		188	400	0	0	0	0	0	0	0	0		
880	scaleworm larva		188	0	0	0	0	0	0	0	0	0		
mg Carbon per cubic meter														
			14	8	1		19	3	5		29	9		3

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
50380	80065	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1332	9	12.0	12.5	0.1	1.7	6.0	4	1	ship
1338	9	6.0	12.5	0.1	1.7	5.7	3	1	ship
1344	9	1.0	12.5	0.1	1.7	5.8	3	1	ship
1514	6	10.0	12.3	0.1	1.0	5.1	1	1	ship
1520	6	5.0	12.3	0.1	1.0	5.4	1	1	ship
1526	6	1.0	12.3	0.1	1.0	5.8	1	1	ship
1646	3	2.0	12.6	0.1	0.5	4.8	1	1	ship

	Station Depth	9 12.0	9 6.0	1.0	10.0	6 5.0	1.0	3 2.0
Code	Name				Number per cubic meter			
5	Acartia clausi F	0	0	0	0	0	0	0
6	Acartia clausi M	0	0	0	0	0	0	0
7	Acartia clausi C	0	0	0	0	0	0	0
8	Acartia clausi N	0	0	0	0	0	0	0
28	Tortanus disticaudatus M	0	0	0	0	0	0	0
36	Calanus tenuicornis C	0	0	0	0	0	0	0
60	Paracalanus parvus F	0	0	0	0	0	0	0
61	Paracalanus parvus M	0	0	0	0	0	0	0
62	Paracalanus parvus C	0	0	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	0	0	0	100
101	Eurytemora affinis M	0	0	0	0	0	0	0
102	Eurytemora affinis C	500	133	200	0	0	0	0
143	Sinocalanus dorii F	167	266	0	0	0	0	0
145	Sinocalanus dorii C	0	133	0	0	0	0	0
194	copepodite (unknown)	0	0	0	0	0	0	0
197	copepod nauplius B	0	0	0	0	0	0	0
198	copepod nauplius C	0	0	0	0	0	0	0
199	copepod nauplius	0	266	0	0	133	0	2700
200	Cyclopoida	0	400	200	613	0	933	300
210	Oithona spp.	0	0	0	1073	0	67	0
220	Corycaeus sp.	0	0	0	0	0	0	0
250	Harpacticoids	0	667	800	0	0	0	700
270	Microsetella sp.	0	0	0	0	0	0	0
281	Harpacticoid A N	0	0	0	0	0	0	0
321	Isopoda imm.	0	0	0	0	0	0	0
332	Neomysis mercedis	0	0	0	0	0	0	0
355	Cancer zoea	0	0	0	0	0	0	0
370	Natantia zoea	0	0	0	0	0	0	0
391	euphausid nauplius	0	0	0	0	0	0	0
401	barnacle nauplius	0	0	0	0	0	0	0
402	barnacle cypris	0	0	0	0	0	0	0
440	Cladocera	0	133	0	307	0	333	400
570	Gobiidae larva	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	0	133	0	0	0	0	0
603	Tintinnopsis sp. B	0	133	0	0	0	0	0
605	Eutintinnus neriticus	0	0	0	0	0	0	0
682	flatworm sp. B	0	0	0	0	0	0	0
700	Rotifera	0	0	0	153	0	200	600
701	Synchaeta sp.	0	0	0	0	0	0	0

Code	Name	Station	12.0	9	6.0	1.0	10.0	6	5.0	1.0	3
		Depth									2.0
Number per cubic meter											
702	Synchaeta sp. egg		0	0	0	0	0	0	0	0	0
740	Nematoda		0	0	0	153	0	0	67	0	0
821	Bivalvia veliger		0	0	0	0	0	0	0	0	0
855	spionid larva		0	0	0	0	0	0	0	0	0
880	scaleworm larva		0	0	0	0	0	0	0	0	0
mg Carbon per cubic meter											
			2	5	2		3	0	3		3

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
50380	80065	North S.F.Bay	Esterio	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
900	312	1.0	12.8	2.1	4.4	18.3	0	1	ship
940	318	1.0	12.9	1.8	10.9	28.9	0	1	ship
1015	324	0.5	12.5	1.3	11.6	32.4	1	1	ship

Station	312	318	324
Depth	1.0	1.0	0.5

Code	Name	Number per cubic meter
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100	<i>Eurytemora affinis</i> F	0	182	0
101	<i>Eurytemora affinis</i> M	0	364	364
102	<i>Eurytemora affinis</i> C	227	364	727
143	<i>Sinocalanus dorii</i> F	0	0	364
144	<i>Sinocalanus dorii</i> M	0	0	364
145	<i>Sinocalanus dorii</i> C	0	182	182
197	copepod nauplius B	0	1455	364
199	copepod nauplius	26364	1818	545
200	Cyclopoida	1136	0	182
250	Harpacticoida	0	0	364
440	Cladocera	0	0	0
603	<i>Tintinnopsis</i> sp. B	0	2727	727
705	Keratella sp.	0	0	0

mg Carbon per cubic meter	3	8
6		

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DATE 50380	JULIAN DATE 80065	LOCATION North S.F.Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETritus	TIDE	COUNT type
1410	404	3.0	12.2	0.1	1.7	6.6	1	1	ship
1505	418	1.0	12.5	0.1	1.8	8.0	1	1	ship

Station	404	418
Depth	3.0	1.0

Code	Name	Number per cubic meter
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	0
197	copepod nauplius B	0
199	copepod nauplius	909
200	Cyclopoida	364
250	Harpacticoida	727
440	Cladocera	182
603	Tintinnopsis sp. B	0
705	Keratella sp.	0

mg Carbon per cubic meter

2 2

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DATE 190380	JULIAN DATE 80079	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETITRUS	TIDE	COUNT type
727	19	5.0	12.9	20.7	1.1	1.4	3	-1	ship
720	19	1.0	12.9	20.7	1.1	1.4	3	-1	ship
815	17	5.0	13.3	18.8	1.5	4.0	4	-1	ship
942	15	14.0	13.2	10.1	2.4	6.4	4	-1	ship
948	15	7.0	13.2	9.0	2.5	7.0	3	-1	ship
954	15	1.0	13.2	5.5	2.7	6.0	3	-1	ship

	Station Depth	19	17	15
	5.0	1.0	5.0	7.0

Code	Name	Number per cubic meter
5	Acartia clausi F	833 500 0 2667 333 0
6	Acartia clausi M	0 167 333 2000 333 0
7	Acartia clausi C	417 500 2000 7000 6333 667
8	Acartia clausi N	2083 333 6000 1667 2667 0
60	Paracalanus parvus F	417 167 333 333 0 0
62	Paracalanus parvus C	417 0 0 333 0 0
100	Eurytemora affinis F	0 0 0 0 0 333
101	Eurytemora affinis M	0 0 0 0 0 333
102	Eurytemora affinis C	0 0 0 333 0 0
140	Centropages abdominalis F	0 167 0 0 0 0
142	Centropages abdominalis C	417 0 0 0 0 0
143	Sinocalanus dorii F	0 0 0 0 0 0
144	Sinocalanus dorii M	0 0 0 0 0 0
145	Sinocalanus dorii C	0 0 0 0 0 0
194	copepodite (unknown)	0 0 0 0 0 333
196	copepod nauplius A	0 0 333 0 0 0
197	copepod nauplius B	0 0 0 0 0 0
199	copepod nauplius	3333 833 1000 0 0 333
200	Cyclopoida	0 0 0 333 667 2000
250	Harpacticoida	833 500 0 1333 0 0
270	Microsetella sp.	0 0 0 333 0 0
333	Neomysis mercedis juv.	0 0 0 0 0 0
440	Cladocera	0 0 0 0 0 0
441	Bosmina sp.	0 0 0 0 0 0
445	Daphnia pulex	0 0 0 0 0 0
601	tintinnid spp.	0 333 333 0 0 0
603	Tintinnopsis sp. B	0 0 12667 100000 70000 6667
605	Eutintinnus neriticus	0 0 0 0 333 0
700	Rotifera	0 0 333 0 667 667
701	Synchaeta sp.	0 0 0 0 0 0
703	Brachionus sp.	0 0 0 0 0 0
704	Kellicottia sp.	0 0 0 0 0 0
705	Keratella sp.	0 0 0 0 0 0
713	Asplanchna sp.	0 0 0 0 0 0
715	Polyarthra sp.	0 0 0 0 0 0
719	Filinia sp.	0 0 0 0 0 0
821	Bivalvia veliger	0 500 333 333 0 0
855	spionid larva	0 167 333 0 333 0
880	scaleworm larva	0 0 333 0 0 0

µg Carbon per cubic meter

7 5 5 21 10 10

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ZOOPLANKTON

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DATE 190380	JULIAN DATE 80079	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1045	13	8.0	13.4	8.2	3.8	7.4	4	-1	ship
1051	13	4.0	13.4	6.2	3.8	6.0	4	-1	ship
1057	13	1.0	13.5	5.5	3.0	5.6	3	-1	ship
1329	9	10.0	12.9	0.2	2.7	6.1	4	1	ship
1335	9	5.0	13.1	0.2	2.8	6.1	4	1	ship
1341	9	1.0	13.1	0.2	2.9	6.1	4	1	ship
1455	6	5.0	13.2	0.1	2.3	4.6	4	1	ship

Station Depth	13 8.0	13 4.0	1.0	10.0	9 5.0	1.0	6 5.0
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Code	Name	Number per cubic meter					
5	Acartia clausi F	533	267	800	0	0	0
6	Acartia clausi M	0	0	0	0	0	0
7	Acartia clausi C	1066	267	800	0	0	0
8	Acartia clausi N	1066	267	1867	0	0	0
60	Paracalanus parvus F	0	0	0	0	0	0
62	Paracalanus parvus C	0	0	0	0	0	0
100	Eurytemora affinis F	0	1333	267	0	0	0
101	Eurytemora affinis M	533	267	0	0	167	0
102	Eurytemora affinis C	1066	1066	0	0	0	133
140	Centropages abdominalis F	0	0	0	0	0	0
142	Centropages abdominalis C	0	0	0	0	0	0
143	Sinocalanus dorii F	0	0	0	267	1333	0
144	Sinocalanus dorii M	0	0	0	267	167	0
145	Sinocalanus dorii C	0	0	0	0	0	267
194	copepodite (unknown)	0	0	0	0	0	333
196	copepod nauplius A	0	0	0	0	0	0
197	copepod nauplius B	0	267	1067	0	0	0
199	copepod nauplius	3200	533	0	0	0	500
200	Cyclopoida	0	2133	1067	1600	500	2833
250	Harpacticoida	533	0	267	1067	0	2333
270	Microsetella sp.	0	267	267	0	0	0
333	Neomysis mercedis juv.	0	7	0	0	0	0
440	Cladocera	0	0	0	267	333	0
441	Bosmina sp.	0	0	0	0	0	833
445	Daphnia pulex	0	0	0	0	0	0
601	tintinnid spp.	0	0	0	0	0	0
603	Tintinnopsis sp. B	170667	85333	32000	0	0	0
605	Eutintinnus neriticus	0	0	0	0	0	0
700	Rotifera	533	0	267	0	0	0
701	Synchaeta sp.	533	0	0	0	0	600
703	Brachionus sp.	0	0	0	0	0	600
704	Kellicottia sp.	0	0	0	0	0	600
705	Keratella sp.	0	0	0	0	0	167
713	Asplanchna sp.	0	0	0	0	0	1
715	Polyarthra sp.	0	0	0	0	0	600
719	Filinia sp.	0	0	0	0	0	600
821	Bivalvia veliger	0	0	0	0	0	0
855	spionid larva	0	0	0	0	0	0
880	scaleworm larva	0	0	0	0	0	0

Code	Name	Station Depth	8.0	4.0	13	1.0	10.0	5.0	9	1.0	6	5.0
950	Anocystis sp.		0	0	0		1	1	1	1		1
			7	14	8		10	14	14			6

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
190380	80079	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF #/m	DETritus	TIDE	COUNT type
1606	3	3.0	12.4	0.1	4.0	4.1	4	1	ship
1745	657	3.0	12.0	0.1	4.2	4.8	4	1	ship

Station	3	657
Depth	3.0	3.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
60	Paracalanus parvus F	0
62	Paracalanus parvus C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	167
140	Centropages abdominalis F	0
142	Centropages abdominalis C	0
143	Sinocalanus dorii F	0
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	0
194	copepodite (unknown)	167
196	copepod nauplius A	0
197	copepod nauplius B	0
199	copepod nauplius	0
200	Cyclopoida	667
250	Harpacticoida	1000
270	Microsetella sp.	0
333	Neomysis mercedis juv.	0
440	Cladocera	0
441	Bosmina sp.	0
445	Daphnia pulex	667
601	tintinnid spp.	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
700	Rotifera	0
701	Synchaeta sp.	0
703	Brachionus sp.	0
704	Kellicottia sp.	0
705	Keratella sp.	0
713	Asplanchna sp.	0
715	Polyarthra sp.	0
719	Filinia sp.	0
821	Rivalvia veliser	0
855	spionid larva	0
880	scaleworm larva	0

ug Carbon per cubic meter

5 4

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
190380	80079	North S.F.Bay	Esterro	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
817	302	0.5	11.9	8.9	2.4	7.6	3	-1	ship
850	306	1.5	12.2	5.9	5.0	8.7	3	-1	ship
930	312	0.3	11.8	5.0	25.5	13.8	3	0	ship

	Station	302	306	312
	Depth	0.5	1.5	0.3

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	200
7	Acartia clausi C	167
8	Acartia clausi N	333
100	Eurytemora affinis F	400
101	Eurytemora affinis M	500
102	Eurytemora affinis C	1200
143	Sinocalanus dorii F	1000
145	Sinocalanus dorii C	0
197	copepod nauplius B	0
199	copepod nauplius	0
200	Cyclopoida	200
250	Harpacticoida	333
270	Microsetella sp.	1000
333	Neomysis mercedis juv.	167
420	Ostracoda	0
440	Cladocera	0
603	Tintinnopsis sp. B	0
		125000
		25000

mg Carbon per cubic meter

2 12 3

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DATE 190380	JULIAN DATE 80079	LOCATION North S.F. Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a μg/l	EXCOF /m	DETritus	TIDE	COUNT type
1012	318	0.8	12.2	4.8	20.1	9.1	2	1	ship
1050	324	0.3	12.2	4.5	18.8	9.9	2	1	ship
1140	334	1.0	13.1	4.1	3.6	8.0	3	1	ship

Station	318	324	334
Depth	0.8	0.3	1.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	0	0	0
6	Acartia clausi M	0	0	0
7	Acartia clausi C	0	0	0
8	Acartia clausi N	200	0	0
100	Eurytemora affinis F	0	0	400
101	Eurytemora affinis M	200	200	0
102	Eurytemora affinis C	2200	1600	1200
143	Sinocalanus dorii F	0	400	0
145	Sinocalanus dorii C	200	400	0
197	copepod nauplius B	3000	3400	800
199	copepod nauplius	600	0	1800
200	Cyclopoida	400	200	1400
250	Harpacticoida	0	400	600
270	Microsetella sp.	600	0	600
333	Neomysis mercedis juv.	0	15	0
420	Ostracoda	0	200	0
440	Cladocera	0	0	200
603	Tintinnopsis sp. B	50000	40000	25000

	m ³ Carbon per cubic meter	
6	8	9

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DATE 90480	JULIAN DATE 80100	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
753	17	11.0	10.8	30.7	2.5	0.6	1	-1	ship
759	17	6.0	11.5	28.5	1.8	0.6	1	-1	ship
855	17	1.0	11.9	25.6	1.9	0.6	0	-1	ship
918	15	10.0	11.8	25.3	1.4	0.9	0	-1	ship
924	15	5.0	12.6	18.5	2.1	1.0	0	-1	ship
930	15	1.0	13.1	16.6	2.6	1.3	0	-1	ship
1035	13	8.0	11.7	25.7	3.8	3.0	1	-1	ship
1041	13	4.0	13.4	15.4	2.8	1.2	0	-1	ship
1047	13	1.0	13.6	13.1	2.8	1.4	0	-1	ship

	Station Depth	17 11.0	17 6.0	1.0	10.0	15 5.0	1.0	8.0	13 4.0	1.0
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Code	Name	Number per cubic meter								
5	Acartia clausi F	0	1333	267	200	500	0	3333	0	0
6	Acartia clausi M	0	0	0	800	0	0	1000	0	0
7	Acartia clausi C	0	0	800	2200	3000	0	10333	4800	1333
8	Acartia clausi N	2333	2667	11467	4600	18333	15400	2833	33000	38133
100	Eurytemora affinis F	0	0	0	0	0	0	0	0	0
101	Eurytemora affinis M	0	0	0	0	0	0	0	0	0
102	Eurytemora affinis C	0	0	0	0	0	0	0	0	0
143	Sinocalanus dorii F	0	0	0	0	0	0	0	0	0
144	Sinocalanus dorii M	0	0	0	0	0	0	0	0	0
145	Sinocalanus dorii C	0	0	0	0	0	0	0	0	0
196	copepod nauplius A	0	667	0	0	167	0	0	0	0
197	copepod nauplius B	0	0	0	0	0	0	0	0	0
199	copepod nauplius	667	0	0	0	0	0	0	0	0
200	Cyclopoida	333	0	0	0	0	0	0	0	0
213	Oithona spinostris	333	0	0	0	0	0	0	0	0
250	Harpacticoida	333	1333	0	800	167	0	500	0	0
270	Microsetella sp.	333	0	0	0	0	0	0	0	0
281	Harpacticoid A N	333	0	0	0	0	0	0	0	0
325	Synidotea laticauda imm.	0	0	0	0	0	0	167	0	0
331	Mysid Juvenile	0	0	0	0	0	0	0	0	0
401	barnacle nauplius	0	333	0	600	333	0	167	0	0
420	Ostracoda	0	0	0	0	0	0	0	0	0
441	Bosmina sp.	0	0	0	0	0	0	0	0	0
445	Daphnia pulex	0	0	0	0	0	0	0	0	0
505	echinoderm Pleuteus larva	333	0	1333	1800	1833	0	0	0	0
602	Tintinnopsis sp. A	1333	0	0	1200	0	400	667	0	267
603	Tintinnopsis sp. B	5000	5667	533	46000	11667	13000	189167	175600	206667
605	Eutintinnus neriticus	667	8333	800	37200	9500	2800	0	800	0
682	flatworm sp. B	0	0	0	0	333	0	167	200	0
701	Synchaeta sp.	3667	1000	3733	1000	500	0	0	3800	267
705	Keratella sp.	0	0	0	0	0	0	0	0	0
751	Ectoprocta larva	0	333	0	0	167	0	0	0	0
821	Bivalvia veliger	1000	0	0	400	167	0	0	0	0
851	polychaete trochophore	333	0	0	0	0	0	0	0	0
855	spionid larva	1000	1333	533	800	500	0	0	0	0
880	scaleworm larva	0	667	0	1000	0	0	0	0	0

		mg Carbon per cubic meter								
		6	11	5	13	10	2	22	9	7

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ZOOPLANKTON

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DATE 90480	JULIAN DATE 80100	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1221	9	8.0	13.6	10.3	3.3	5.5	0	-1	ship
1227	9	5.0	13.8	7.2	2.1	2.5	0	-1	ship
1233	9	1.0	14.4	6.1	2.3	2.0	0	-1	ship
1415	6	7.0	14.3	0.1	2.4	4.4	5	-1	ship
1421	6	4.0	14.3	0.1	2.4	4.4	5	-1	ship
1427	6	1.0	14.2	0.2	2.5	5.2	5	-1	ship
1535	3	8.0	14.4	0.1	2.5	3.3	5	-1	ship
1541	3	5.0	14.4	0.1	2.3	3.1	5	-1	ship
1547	3	1.0	14.4	0.1	2.4	3.2	4	-1	ship

	Station Depth	9 8.0	9 5.0	6 1.0	6 7.0	4.0 4.0	1.0 1.0	3 8.0	3 5.0	1.0 1.0
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Code	Name	Number per cubic meter								
5	Acartia clausi F	0	0	0	0	0	0	0	0	0
6	Acartia clausi M	0	0	0	667	0	0	0	0	0
7	Acartia clausi C	667	267	0	0	0	0	0	0	0
8	Acartia clausi N	5667	1600	1333	0	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	1234	1000	333	0	0	0
101	Eurytemora affinis M	0	0	0	1234	1333	333	0	0	0
102	Eurytemora affinis C	0	0	0	667	2333	0	0	0	0
143	Sinocalanus dorii F	0	0	0	667	667	667	555	333	667
144	Sinocalanus dorii M	0	0	0	0	1000	0	0	333	0
145	Sinocalanus dorii C	0	0	0	0	1000	0	0	0	0
196	copepod nauplius A	0	0	0	0	0	0	0	0	0
197	copepod nauplius B	0	0	1333	0	0	0	0	0	0
199	copepod nauplius	0	0	6333	0	0	0	0	0	0
200	Cyclopoida	0	0	333	667	1000	333	1389	2667	1000
213	Oithona spinirostris	0	0	0	0	0	0	0	0	0
250	Harpacticoida	0	800	0	2000	4333	4333	0	0	333
270	Microsetella sp.	0	0	0	0	0	0	0	0	0
281	Harpacticoid A N	0	0	0	0	0	0	0	0	0
325	Synidotea laticauda imm.	0	0	0	0	0	0	0	0	0
331	Mysid juvenile	0	0	0	14	0	0	0	0	0
401	barnacle nauplius	0	0	333	0	0	0	0	0	0
420	Ostracoda	0	0	0	667	0	0	0	0	0
441	Bosmina sp.	0	0	0	667	1000	0	0	667	1000
445	Daphnia pulex	0	0	0	0	0	0	0	333	667
505	echinoderm pleuteus larva	0	0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	0	0	0	0	0	0	0	0	0
603	Tintinnopsis sp. B	183333	82667	33333	0	0	0	0	0	0
605	Eutintinnus neriticus	333	0	0	0	0	0	0	0	0
682	flatworm sp. B	0	0	0	0	0	0	0	0	0
701	Synchaeta sp.	333	267	333	0	0	0	0	0	0
705	Keratella sp.	0	0	0	0	0	0	0	0	0
751	Ectoprocta larva	0	0	0	0	0	0	0	0	0
821	Bivalvia veliger	0	0	0	0	0	0	0	0	0
851	polychaete trochophore	0	0	0	0	0	0	0	0	0
855	spionid larva	0	0	0	0	0	0	0	0	0
880	scaleworm larva	0	0	0	0	0	0	0	0	0

	µg Carbon per cubic meter								
	3	2	3	20	33	13	9	14	11

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ZOOPLANKTON

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DATE 90480	JULIAN DATE 80100	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF #/m	DETITRUS	TIDE	COUNT type
1753	657	5.0	13.4	0.1	2.5	3.1	3	-1	ship
1759	657	1.0	13.4	0.1	2.7	3.1	3	-1	ship

Station 657
Depth 5.0 1.0

Code	Name	Number per cubic meter	
5	Acartia clausi F	0	0
6	Acartia clausi M	0	0
7	Acartia clausi C	0	0
8	Acartia clausi N	0	0
100	Eurytemora affinis F	0	0
101	Eurytemora affinis M	0	0
102	Eurytemora affinis C	0	0
143	Sinocalanus dorii F	0	0
144	Sinocalanus dorii M	0	0
145	Sinocalanus dorii C	0	0
196	copepod nauplius A	0	0
197	copepod nauplius B	0	0
199	copepod nauplius	0	0
200	Cyclopoida	833	500
213	Oithona spinirostris	0	0
250	Harpacticoids	167	1833
270	Microsetella sp.	0	0
281	Harpacticoid A N	0	0
325	Syndotea laticauda imm.	0	0
331	Mysid juvenile	0	0
401	barnacle nauplius	0	0
420	Ostracoda	0	0
441	Bosmina sp.	0	1833
445	Daphnia pulex	0	167
505	echinoderm Pleuteus larva	0	0
602	Tintinnopsis sp. A	0	0
603	Tintinnopsis sp. B	0	0
605	Eutintinnus neriticus	0	0
682	flatworm sp. B	0	0
701	Synchaeta sp.	0	0
705	Keratella sp.	833	0
751	Ectoprocta larva	0	0
821	Bivalvia veliger	0	0
851	polychaete trochophore	0	0
855	spionid larva	0	0
880	scaleworm larva	0	0

#5 Carbon per cubic meter

3 7

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
90480	80100	North S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
750	302	2.0	13.4	17.8	2.6	0.9	0	1	ship
815	306	2.5	12.9	18.6	3.2	1.3	0	1	ship
850	312	1.0	13.7	11.4	9.0	3.8	0	0	ship

	Station Depth	302 2.0	306 2.5	312 1.0
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Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	1683
8	Acartia clausi N	130246
100	Eurytemora affinis F	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
199	copepod nauplius	0
200	Cyclopoida	0
250	Harpacticoida	0
401	barnacle nauplius	337
441	Bosmina sp.	0
602	Tintinnopsis sp. A	337
603	Tintinnopsis sp. B	91542
605	Eutintinnus neriticus	1346
701	Synchaeta sp.	6731
740	Nematoda	0
821	Bivalvia veliger	0
855	spionid larva	337

mg Carbon per cubic meter

16 10 11

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ZOOPLANKTON

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DATE 90480	JULIAN DATE 80100	LOCATION North S.F. Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETITUTUS	TIDE	COUNT type
925	318	1.0	14.3	11.3	14.5	5.9	1	0	ship
955	324	1.0	14.9	11.6	39.4	13.9	1	0	ship
1040	334	1.0	13.9	11.6	5.4	2.3	0	0	ship

Station	318	324	334
Depth	1.0	1.0	1.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	673	1683	1122
6	Acartia clausi M	0	0	561
7	Acartia clausi C	12116	5890	5048
8	Acartia clausi N	65291	16828	24120
100	Eurytemora affinis F	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
199	copepod nauplius	0	0	0
200	Cyclopoida	0	0	561
250	Harpacticoida	0	0	561
401	barnacle nauplius	0	0	561
441	Rosinae sp.	0	0	0
602	Tintinnopsis sp. A	673	0	0
603	Tintinnopsis sp. B	452327	569615	311311
605	Eutintinnus neriticus	2019	0	2244
701	Synchaeta sp.	3366	841	1122
740	Nematoda	0	0	0
821	Bivalvia veliger	673	0	561
855	spionid larva	0	0	0

	mg Carbon per cubic meter	
22	16	16

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
90480	80100	North S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /#	DETРИTUS	TIDE	COUNT type
1400	414	0.5	16.2	0.5	13.4	7.9	4	-1	ship
1435	418	0.5	15.5	0.2	24.0	6.3	3	-1	ship
1800	757	5.0	13.5	0.1	1.2	2.4	3	-1	ship

Station	Depth	414	418	757
		0.5	0.5	5.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
100	Eurytemora affinis F	561
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
199	copepod nauplius	1683
200	Cyclopoida	1122
250	Harpacticoida	1122
401	barnacle nauplius	0
441	Bosmina sp.	561
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	5609
605	Eutintinnus neriticus	0
701	Synchaeta sp.	0
740	Nematoda	0
821	Bivalvia veliger	0
855	spionid larva	0

	ug Carbon per cubic meter	
8	13	30

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
230480	80114	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF %/m	DETritus	TIDE	COUNT type
722	19	15.0	10.5	32.2	5.7	0.8	1	0	ship
716	19	1.0	11.3	31.4	6.9	0.7	1	0	ship
805	17	12.0	11.2	31.1	6.2	1.0	2	0	ship
811	17	6.0	11.9	29.4	5.0	0.8	1	0	ship
817	17	1.0	13.0	25.8	4.1	0.9	0	0	ship
942	15	11.0	13.2	24.6	4.6	1.0	0	-1	ship
948	15	6.0	14.2	17.3	5.0	1.1	0	-1	ship
954	15	1.0	14.2	16.4	5.3	1.2	0	-1	ship

Code	Name	Station Depth	15.0	19	1.0	12.0	17	6.0	1.0	11.0	15	6.0	1.0
			Number per cubic meter										
5	Acartia clausi F	0	667			2000	1000	0	167	0	0	0	0
6	Acartia clausi M	0	0			0	0	0	0	0	0	0	0
7	Acartia clausi C	2667	1667			667	333	333	1333	3000	2000		
8	Acartia clausi N	333	1000			1000	0	2000	1667	123333	89333		
36	Calanus tenuicornis C	0	0			333	0	0	0	0	0	0	0
63	Paracalanus Parvus N	0	0			0	333	0	0	0	0	0	0
100	Eurtemora affinis F	0	0			0	0	0	0	0	0	0	0
101	Eurtemora affinis M	0	0			0	0	0	0	0	0	0	0
102	Eurtemora affinis C	0	0			0	0	0	0	0	0	0	0
143	Sinocalanus dorii F	0	0			0	0	0	0	0	0	0	0
145	Sinocalanus dorii C	0	0			0	0	0	0	0	0	0	0
191	Epilabidocera longispedata M	0	0			0	0	0	0	0	333	0	0
194	copepodite (unknown)	0	0			0	0	0	0	0	0	0	0
196	copepod nauplius A	0	0			0	0	667	0	0	333	0	0
197	copepod nauplius B	0	0			0	0	0	0	0	0	0	0
199	copepod nauplius	1667	2000			1333	2000	9000	1167	0	0	0	0
200	Cyclopoida	0	0			0	0	0	0	0	0	0	0
210	Oithona spp.	333	0			333	667	0	0	0	0	0	0
250	Harpacticoida	333	333			1000	667	0	0	0	667	0	0
251	Harpacticoid B (bronze)	0	0			0	0	0	0	0	0	0	0
333	Neomysis mercedis juv.	0	0			0	333	0	0	0	0	0	0
401	barnacle nauplius	667	0			1000	1000	1333	833	0	0	0	0
402	barnacle cypris	333	0			0	0	0	0	0	0	0	0
420	Ostracoda	0	0			0	0	0	0	0	0	0	0
441	Bosmina sp.	0	0			0	0	0	0	0	0	0	0
445	Daphnia pulex	0	0			0	0	0	0	0	0	0	0
560	fish larva	0	0			0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	0	1333			1667	333	0	2667	333	333		
603	Tintinnopsis sp. B	0	0			0	333	333	9333	1333	0		
605	Eutintinnus neriticus	2333	333			1667	1667	0	5333	667	0		
608	Parafavella sp.	1333	5333			667	667	667	0	333	0		
682	flatworm sp. B	333	1667			0	333	333	0	0	333		
701	Synchaeta sp.	0	333			0	333	0	167	0	667		
703	Brachionus sp.	0	0			0	0	0	0	0	0		
740	Nematoda	1000	0			0	0	0	0	0	0		
748	Phoronida larva	333	0			0	0	0	0	0	0		
801	Gastropod veliger	333	0			0	0	0	0	0	0		
821	Bivalvia veliger	667	0			0	0	0	333	0	0		

Code	Name	Station Depth	15.0	19	1.0	12.0	17	6.0	1.0	11.0	15	6.0	1.0
			Number per cubic meter										
851	polychaete trochophore		0	0	0	0	0	0	0	0	0	0	0
852	polychaete larva		2667	2667	1000	2667	0	0	0	0	0	0	0
855	spionid larva		3333	3000	2667	2667	0	0	1667	333	0	0	0
880	scaleworm larva		333	0	333	0	0	0	0	333	0	0	0
			mg Carbon per cubic meter										
			16	13	18	13	4		7	27	11		

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
230480	80114	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
1050	13	8.0	13.1	25.7	6.5	3.5	1	-1	ship
1056	13	4.0	13.4	24.3	3.5	1.1	0	-1	ship
1102	13	1.0	14.6	16.0	2.5	1.1	0	-1	ship
1257	9	9.0	15.3	8.4	4.5	4.1	0	-1	ship
1303	9	5.0	15.4	7.6	4.6	3.9	1	-1	ship
1309	9	1.0	15.5	6.0	5.7	4.0	0	-1	ship
1445	6	5.0	16.3	0.2	5.7	10.0	5	-1	ship
1451	6	1.0	16.2	0.2	6.8	9.0	5	-1	ship

	Station Depth	13 8.0	13 4.0	1.0	9.0	9 5.0	1.0	5.0	6 1.0
Code	Name	Number per cubic meter							
5	Acartia clausi F	1667	1333	0	310	917	0	0	0
6	Acartia clausi M	1000	2000	0	0	0	0	0	0
7	Acartia clausi C	3333	9333	2000	2012	2383	100	0	0
8	Acartia clausi N	0	6667	158333	0	0	0	0	0
36	Calanus tenuicornis C	0	0	0	0	0	0	0	0
63	Paracalanus parvus N	0	0	0	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	0	0	0	833	1300
101	Eurytemora affinis M	0	0	0	0	0	0	1000	650
102	Eurytemora affinis C	0	0	0	0	0	0	1667	3900
143	Sinocalanus dorii F	0	0	0	0	0	0	500	650
145	Sinocalanus dorii C	0	0	0	0	0	0	1333	0
191	Epilabidocera longipedata M	0	0	0	0	0	0	0	0
194	copepodite (unknown)	0	0	0	0	0	0	0	0
196	copepod nauplius A	0	0	0	0	0	0	0	0
197	copepod nauplius B	0	0	0	0	0	100	0	0
199	copepod nauplius	0	0	0	0	0	500	0	0
200	Cyclopoida	0	0	0	310	367	350	167	433
210	Oithona sp.	0	0	0	0	0	0	0	0
250	Harpacticoida	0	0	0	0	367	0	167	0
251	Harpacticoid B (bronze)	0	0	0	0	0	0	2000	650
333	Neomysis mercedis juv.	0	0	0	30	10	0	10	217
401	barnacle nauplius	1000	1000	0	619	367	50	0	0
402	barnacle cypris	0	0	0	0	0	0	0	0
420	Ostracoda	0	0	0	0	183	0	0	0
441	Bosmina sp.	0	0	0	0	0	0	0	0
445	Daphnia pulex	0	0	0	0	0	0	0	0
560	fish larva	0	0	0	0	1	0	0	0
602	Tintinnopsis sp. A	667	8667	0	1083	550	0	0	0
603	Tintinnopsis sp. B	16667	0	333	0	4583	150	0	0
605	Eutintinnus neriticus	4667	14333	0	155	0	0	0	0
608	Parafavella sp.	0	0	0	0	0	0	0	0
682	flatworm sp. B	667	0	0	0	0	0	0	0
701	Synchaeta sp.	0	0	0	0	0	0	0	0
703	Brachionus sp.	0	0	0	0	0	0	0	0
740	Nematoda	0	0	0	0	0	0	0	0
748	Phoronida larva	0	0	0	0	0	0	0	0
801	Gastropod veliger	0	0	0	0	0	0	0	0
821	Bivalvia veliger	667	0	0	0	0	0	0	0

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	Station Depth	8.0	13 4.0	1.0	9.0	9 5.0	1.0	5.0	6 1.0
Code	Name	Number per cubic meter							
851	polychaete trophophore	333	333	0	0	0	0	0	0
852	polychaete larva	667	667	0	0	0	0	0	0
855	spionid larva	2000	667	0	155	0	0	0	0
880	scaleworm larva	0	0	0	0	0	0	0	0
		ug Carbon per cubic meter							
		17	19	17	5	7	1	18	17

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
230480	80114	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1610	3	9.0	16.1	0.1	3.4	4.3	5	-1	ship
1616	3	5.0	16.2	0.1	3.4	4.3	5	-1	ship
1622	3	1.0	16.3	0.1	3.4	3.6	2	-1	ship
1755	657	5.0	14.2	0.1	5.0	1.9	3	0	ship
1801	657	1.0	14.2	0.1	5.0	1.9	3	0	ship

Code	Name	Station	3	5.0	1.0	657	1.0
		Depth	9.0			5.0	
5	Acartia clausi F		0	0	0	0	0
6	Acartia clausi M		0	0	0	0	0
7	Acartia clausi C		0	0	0	0	0
8	Acartia clausi N		0	0	0	0	0
36	Calanus tenuicornis C		0	0	0	0	0
63	Paracalanus parvus N		0	0	0	0	0
100	Eurytemora affinis F		0	0	0	0	0
101	Eurytemora affinis M		0	0	0	0	0
102	Eurytemora affinis C		0	0	0	0	0
143	Sinocalanus dorii F	1875	533	325	0	0	0
145	Sinocalanus dorii C	625	0	0	0	0	0
191	Epilabidocera longipedata M		0	0	0	0	0
194	copepodite (unknown)		0	0	0	83	67
196	copepod nauplius A		0	0	0	0	0
197	copepod nauplius B		0	0	0	0	0
199	copepod nauplius		0	0	0	83	67
200	Cyclopoida	625	533	433	167	67	
210	Dithona spp.		0	0	0	0	0
250	Harpacticoida	938	667	867	417	1800	
251	Harpacticoid B (bronze)		0	0	0	0	0
333	Neomysis mercedis juv.		0	0	0	0	0
401	barnacle nauplius		0	0	0	0	133
402	barnacle cypris		0	0	0	0	0
420	Ostracoda		0	0	0	0	0
441	Bosmina sp.	625	133	1408	0	867	
445	Daphnia pulex	312	0	0	0	67	
560	fish larva		0	0	0	0	0
602	Tintinnopsis sp. A		0	0	0	0	0
603	Tintinnopsis sp. B		0	0	0	0	0
605	Eutintinnus neriticus		0	0	0	0	0
608	Parafavella sp.		0	0	0	0	0
682	flatworm sp. B		0	0	0	0	0
701	Synchaeta sp.		0	0	0	0	0
703	Brachionus sp.		0	0	0	0	67
740	Nematoda		0	0	0	0	0
748	Phoronida larva		0	0	0	0	0
801	Gastropod veliger		0	0	0	0	0
821	Bivalvia veliger		0	0	0	0	0
851	Polychaete trochophore		0	0	0	0	0
852	Polychaete larva		0	0	0	0	0
855	spionid larva		0	0	0	0	0

Code	Name	Station	9.0	3	1.0	5.0	657	1.0
		Depth						
B80	scaleworm larva		0	0	0	0	0	
			21	7	7	1	4	ms Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
230480	80114	North S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETritus	TIDE	COUNT type
800	302	1.5	13.7	15.3	3.5	1.2	0	-1	ship
825	306	3.0	13.7	14.1	4.0	1.3	0	-1	ship
850	312	1.0	14.1	11.2	4.0	1.4	0	0	ship

	Station	302	306	312
	Depth	1.5	3.0	1.0

Code	Name	Number per cubic meter
5	Acartia clausi F	267
6	Acartia clausi M	1333
7	Acartia clausi C	4800
8	Acartia clausi N	5600
197	copepod nauplius B	0
250	Harpacticoida	0
280	Harpacticoid sp.A	267
401	barnacle nauplius	1067
402	barnacle cypris	267
602	Tintinnopsis sp. A	8800
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	2933
660	Hydrozoa	267
682	flatworm sp. B	267
701	Synchaeta sp.	0
801	Gastropod veliger	800
821	Bivalvia veliger	533
852	Polychaete larva	267
855	spionid larva	533

mg Carbon per cubic meter

5 12 14

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
230480	80114	North S.F.Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETritus	TIDE	COUNT type
925	318	1.5	14.2	11.5	5.1	1.3	0	0	ship
1000	324	1.0	14.0	13.1	12.6	2.6	0	0	ship
1050	334	0.5	14.3	14.1	5.0	2.2	2	-1	ship

Station Depth	318	324	334
	1.5	1.0	0.5

Code	Name	Number per cubic meter
5	Acartia clausi F	1600
6	Acartia clausi M	0
7	Acartia clausi C	24000
8	Acartia clausi N	13333
197	copepod nauplius B	267
250	Harpacticoida	0
280	Harpacticoid sp.A	0
401	barnacle nauplius	267
402	barnacle cypris	0
602	Tintinnopsis sp. A	267
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	267
660	Hydrozoa	0
682	flatworm sp. B	0
701	Synchaeta sp.	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
852	polychaete larva	0
855	spionid larva	0

	mg Carbon per cubic meter
4	25
	15

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DATE 80580	JULIAN DATE 80129	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
744	17	15.0	11.7	31.3	10.5	1.3	1	-1	ship
750	17	5.0	12.5	29.8	4.2	0.9	0	-1	ship
756	17	1.0	12.9	29.0	5.3	0.9	0	-1	ship
925	15	10.0	13.7	27.1	3.1	1.1	0	-1	ship
931	15	5.0	14.5	24.3	4.0	1.2	0	-1	ship
937	15	1.0	14.7	20.3	9.0	1.2	0	-1	ship
1043	13	8.0	14.6	24.1	3.2	1.6	0	-1	ship
1049	13	5.0	14.6	24.1	4.0	1.6	0	-1	ship
1055	13	1.0	16.1	15.7	8.1	1.1	0	-1	ship

Code	Name	Station Depth	15.0	5.0	1.0	10.0	5.0	1.0	17	15	13
									Number per cubic meter	8.0	5.0
5	Acartia clausi F		800	200	0	0	0	200	2600	0	0
6	Acartia clausi M		0	0	200	0	0	0	2200	300	0
7	Acartia clausi C		800	1400	600	1600	400	11800	17400	13200	8800
8	Acartia clausi N		2400	1600	1000	7800	3000	11800	5800	12600	22200
100	Eurytemora affinis F		0	0	0	0	0	0	0	0	0
101	Eurytemora affinis M		0	0	0	0	0	0	0	0	0
102	Eurytemora affinis C		0	0	0	0	0	0	0	0	0
143	Sinocalanus dorii F		0	0	0	0	0	0	0	0	0
144	Sinocalanus dorii M		0	0	0	0	0	0	0	0	0
145	Sinocalanus dorii C		0	0	0	0	0	0	0	0	0
194	copepodite (unknown)		0	0	0	0	0	0	0	0	0
196	copepod nauplius A		400	400	0	200	0	200	0	0	0
199	copepod nauplius		0	1000	400	0	0	200	0	0	0
200	Cyclopoida		0	0	0	0	0	0	0	0	0
201	Cyclopoid A (large-low sal)		0	0	0	0	0	0	0	0	0
250	Harpacticoida		1200	200	400	200	0	0	0	0	0
251	Harpacticoid B (bronze)		0	0	0	0	0	0	0	0	0
333	Neomysis mercedis juv.		0	0	0	0	0	0	0	0	0
401	barnacle nauplius		0	400	0	400	0	2200	400	0	1000
402	barnacle cypris		0	0	0	0	0	200	0	0	0
441	Bosmina sp.		0	0	0	0	0	0	0	0	0
445	Daphnia pulex		0	0	0	0	0	0	0	0	0
541	Dikopleuridae		400	200	0	400	200	0	0	0	0
602	Tintinnopsis sp. A		0	0	0	200	0	800	2600	12600	0
603	Tintinnopsis sp. B		800	400	0	200	0	0	0	0	0
608	Parafavella sp.		2000	1800	7800	1400	0	200	0	0	0
682	flatworm sp. B		0	0	0	0	0	0	0	300	0
700	Rotifera		0	0	0	0	0	0	0	0	0
701	Synchaeta sp.		400	0	0	0	0	0	0	0	0
703	Brachionus sp.		0	0	0	0	0	0	0	0	0
748	Phoronida larva		0	200	0	0	200	200	400	300	0
801	Gastropod veliger		0	200	0	0	0	200	0	0	0
821	Bivalvia veliger		0	200	0	400	0	200	800	0	0
851	Polychaete trochophore		0	200	0	0	0	0	0	0	0
855	spionid larva		0	800	1400	2200	400	1800	200	900	0
880	scaleworm larva		800	1000	0	200	0	0	0	0	0

µg Carbon per cubic meter											
7	8	5	9	2	19	26	15	11			

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DATE 80580	JULIAN DATE 80129	LOCATION North S.F. Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETРИTUS	TIDE	COUNT type
1230	9	10.0	16.7	9.3	6.3	4.6	1	-1	ship
1236	9	5.0	16.8	8.7	5.9	4.1	0	-1	ship
1242	9	1.0	16.8	8.0	5.3	2.8	0	-1	ship
1420	6	8.0	17.4	0.3	7.3	8.6	5	-1	ship
1426	6	5.0	17.4	0.3	7.3	8.3	4	-1	ship
1432	6	1.0	17.4	0.4	7.5	7.2	5	-1	ship
1544	3	10.0	17.9	0.1	4.7	4.1	5	-1	ship
1550	3	5.0	17.9	0.1	4.7	4.1	5	-1	ship
1556	3	1.0	17.9	0.1	4.7	4.5	4	-1	ship

	Station Depth	9	6	3				
	10.0	5.0	1.0	5.0	1.0	10.0	5.0	1.0

Code	Name	Number per cubic meter							
5	Acartia clausi F	1667	1300	0	0	0	0	0	0
6	Acartia clausi M	1000	433	0	0	0	0	0	0
7	Acartia clausi C	2667	2383	61	0	0	0	0	0
8	Acartia clausi N	333	0	122	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	467	933	400	0	0
101	Eurytemora affinis M	0	0	0	467	400	0	0	0
102	Eurytemora affinis C	0	0	0	700	933	600	267	533
143	Sinocalanus dorii F	0	0	0	0	0	0	2667	667
144	Sinocalanus dorii M	0	0	0	700	0	600	1067	333
145	Sinocalanus dorii C	0	0	0	933	133	200	533	167
194	copepodite (unknown)	0	0	0	0	0	0	0	167
196	copepod nauplius A	0	0	0	0	0	0	0	0
199	copepod nauplius	0	0	0	0	0	200	0	0
200	Cyclopoida	0	0	0	0	0	0	533	0
201	Cyclopoid A (large-low sal)	0	0	0	233	0	400	0	500
250	Harpacticoida	0	0	0	0	267	0	0	667
251	Harpacticoid B (bronze)	0	0	0	0	1200	600	0	0
333	Neomysis mercedis Juv.	0	0	0	0	1	0	533	0
401	barnacle nauplius	0	1083	122	0	0	0	0	0
402	barnacle cypris	0	0	0	0	0	0	0	0
441	Bosmina sp.	0	0	0	0	0	0	533	500
445	Daphnia Pulex	0	0	0	0	0	0	0	833
541	Oikopleuridae	0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	1667	1300	122	0	0	0	0	0
603	Tintinnopsis sp. B	0	0	0	0	0	0	0	0
608	Parafavella sp.	0	0	0	0	0	0	0	0
682	flatworm sp. B	0	0	0	0	0	0	0	0
700	Rotifera	0	0	0	0	0	0	0	0
701	Synchaeta sp.	0	0	0	0	0	0	0	0
703	Brachionus sp.	0	0	0	0	0	0	0	0
748	Phoronida larva	0	0	0	0	0	0	0	0
801	Gastropod veliger	0	0	0	0	0	0	0	0
821	Bivalvia veliger	0	0	0	0	0	0	0	0
851	Polychaete trochophore	0	217	0	0	0	0	0	0
855	spionid larva	0	0	0	0	0	0	0	0
880	scaleworm larva	0	0	0	0	0	0	0	0

	mg Carbon per cubic meter								
	8	8	0	11	7	8	32	13	15

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ZOOPLANKTON

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DATE B0580	JULIAN DATE 80129	LOCATION North S.F. Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETITRUS	TIDE	COUNT type
1855	657	2.0	17.4	0.0	16.2	2.2	0	-1	ship

Station
Depth

657
2.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	0
194	copepodite (unknown)	0
196	copepod nauplius A	0
199	copepod nauplius	0
200	Cyclopoida	0
201	Cyclopoid A (large-low sal)	267
250	Harpacticoida	1600
251	Harpacticoid B (bronze)	0
333	Neomysis mercedis juv.	0
401	barnacle nauplius	0
402	barnacle cypris	0
441	Bosmina sp.	1200
445	Daphnia pulex	0
541	Dikopleuridae	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
608	Parafavella sp.	0
682	flatworm sp. B	0
700	Rotifera	133
701	Synchaeta sp.	0
703	Brachionus sp.	133
748	Phoronida larva	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
851	polychaete trochophore	0
855	spionid larva	0
880	scaleworm larva	0

µg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
80580	80129	North S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
805	302	2.0	15.4	20.8	6.5	1.8	0	0	ship
830	306	3.0	15.4	20.7	6.4	1.1	0	1	ship
905	312	1.0	16.4	14.5	19.9	1.8	0	-1	ship

Station	302	306	312
Depth	2.0	3.0	1.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	3556
8	Acartia clausi N	3556
100	Eurytemora affinis F	0
101	Eurytemora affinis M	444
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	0
194	copepodite (unknown)	0
197	copepod nauplius B	0
198	copepod nauplius C	444
199	copepod nauplius	0
200	Cyclopoida	0
201	Cyclopoid A (large-low sal)	0
250	Harpacticoids	889
300	Amphipoda	0
401	barnacle nauplius	0
441	Bosmina sp.	0
445	Daphnia pulex	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
701	Synchaeta sp.	444
821	Bivalvia veliger	1333
855	spionid larva	889
880	scaleworm larva	444

mg Carbon per cubic meter

9 15 6

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DATE 80580	JULIAN DATE 80129	LOCATION North S.F. Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETITRUS	TIDE	COUNT type
1030	318	1.0	17.1	16.1	25.3	2.8	0	-1	ship
1105	324	0.5	17.1	17.0	12.4	9.2	0	-1	ship
1150	334	0.5	17.4	15.7	10.7	1.2	0	-1	ship

	Station Depth	318 1.0	324 0.5	334 0.5
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Code	Name	Number per cubic meter
5	Acartia clausi F	0 5500 444
6	Acartia clausi M	0 2500 0
7	Acartia clausi C	0 68500 4000
8	Acartia clausi N	1143 8000 15556
100	Eurytemora affinis F	0 0 0
101	Eurytemora affinis M	0 0 0
102	Eurytemora affinis C	0 0 0
143	Sinocalanus dorii F	0 0 0
144	Sinocalanus dorii M	0 0 0
145	Sinocalanus dorii C	0 0 0
194	copepodite (unknown)	0 0 0
197	copepod nauplius B	0 0 2667
198	copepod nauplius C	0 0 0
199	copepod nauplius	0 0 0
200	Cyclopoida	0 0 0
201	Cyclopoid A (large-low sal)	0 0 0
250	Harpacticoids	0 0 444
300	Amphipoda	0 0 0
401	barnacle nauplius	571 0 4889
441	Bosmina sp.	0 0 0
445	Daphnia pulex	0 0 0
602	Tintinnopsis sp. A	571 49500 889
603	Tintinnopsis sp. B	0 1000 444
605	Eutintinnus neriticus	0 500 0
701	Synchaeta sp.	0 0 0
821	Bivalvia veliger	0 0 0
855	spionid larva	571 0 1333
880	scaleworm larva	0 0 0

	mg Carbon per cubic meter	
2	75	17

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
80580	80129	North S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
1445	414	1.0	18.9	0.7	28.5	13.2	4	-1	ship
1525	419	0.5	17.5	0.8	12.1	21.4	1	-1	ship
1925	757	5.0	18.2	0.2	1.6	2.5	5	-1	ship

	Station	414	419	757
	Depth	1.0	0.5	5.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	0	0	0
6	Acartia clausi M	0	0	0
7	Acartia clausi C	0	0	0
8	Acartia clausi N	0	0	0
100	Eurytemora affinis F	0	200	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	200	0
143	Sinocalanus dorii F	0	0	2400
144	Sinocalanus dorii M	200	0	2000
145	Sinocalanus dorii C	800	200	600
194	copepodite (unknown)	200	0	0
197	copepod nauplius B	0	0	0
198	copepod nauplius C	0	0	0
199	copepod nauplius	400	200	0
200	Cyclopoida	0	0	0
201	Cyclopoid A (large-low sal)	200	400	0
250	Harpacticoida	400	200	2400
300	Amphipoda	0	1	0
401	barnacle nauplius	0	0	0
441	Bosmina sp.	0	0	13000
445	Daphnia Pulex	0	0	12000
602	Tintinnopsis sp. A	0	0	0
603	Tintinnopsis sp. B	0	0	0
605	Eutintinnus neriticus	0	0	0
701	Synchaeta sp.	0	0	0
821	Bivalvia veliger	0	0	0
855	spionid larva	0	0	0
880	scaleworm larva	0	0	0

	ug Carbon per cubic meter	
6	3	70

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DATE 220580	JULIAN DATE 80143	LOCATION North S.F. Bay	VESSEL Polaris	MESH SIZE 64							
TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF #	DETritus	TIDE	COUNT type		
618	19	14.0	11.8	31.2	2.8	0.9	1	1	ship		
624	19	7.0	11.8	31.1	2.8	0.9	0	1	ship		
612	19	1.0	11.8	31.0	2.8	0.9	0	1	ship		
708	17	15.0	12.1	30.6	6.7	1.3	2	1	ship		
714	17	8.0	12.9	29.2	5.5	1.1	1	1	ship		
720	17	1.0	13.9	25.6	4.3	1.1	0	1	ship		
831	15	15.0	13.3	27.9	3.8	1.4	1	-1	ship		
837	15	8.0	14.0	26.2	4.2	1.5	0	-1	ship		
843	15	1.0	14.7	23.1	6.0	1.7	0	-1	ship		
		Station Depth	19 14.0	19 7.0	1.0	15.0	17 8.0	1.0	15.0	15 8.0	1.0
Code	Name								Number per cubic meter		
5	Acartia clausi F		83	167	0	2400	2400	0	3000	2000	0
6	Acartia clausi M		0	0	0	0	0	0	0	400	0
7	Acartia clausi C		500	333	400	1050	2400	350	3250	2800	167
8	Acartia clausi N		83	1500	600	150	533	583	500	1200	167
100	Eurytemora affinis F		0	0	0	0	0	0	0	0	0
101	Eurytemora affinis M		0	0	0	0	0	0	0	0	0
102	Eurytemora affinis C		0	0	0	0	0	0	0	0	0
143	Sinocalanus dorii F		0	0	0	0	0	0	0	0	0
144	Sinocalanus dorii M		0	0	0	0	0	0	0	0	0
145	Sinocalanus dorii C		0	0	0	0	0	0	0	0	0
194	copepodite (unknown)		0	0	0	0	0	0	0	0	0
195	copepod nauplius D		0	0	200	0	0	0	0	0	0
199	copepod nauplius		0	167	0	0	0	0	0	0	0
200	Cyclopoida		0	0	0	0	0	0	0	0	0
201	Cyclopoid A (large-low sal)		0	0	0	0	0	0	0	0	0
250	Harpacticoida		0	333	0	0	0	117	0	200	0
251	Harpacticoid B (bronze)		0	0	0	0	0	0	0	0	0
270	Microsetella sp.		0	0	100	0	0	0	0	0	0
300	Amphipoda		0	0	0	0	0	0	1	0	0
325	Synidotea laticauda imm.		0	0	0	0	0	0	0	200	0
333	Neomysis mercedis Juv.		0	0	0	0	0	0	0	0	0
401	barnacle nauplius		250	333	300	450	267	233	0	1200	417
420	Ostracoda		0	0	0	0	0	0	0	0	0
441	Bosmina sp.		0	0	0	0	0	0	0	0	0
445	Daphnia pulex		0	0	0	0	0	0	0	0	0
582	Engraulis mordax larva		0	0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A		0	0	0	0	0	0	0	400	83
603	Tintinnopsis sp. B		8250	2333	1700	2400	0	0	0	200	83
681	flatworm sp. A		0	0	0	0	0	0	0	0	0
682	flatworm sp. B		0	0	0	0	0	0	0	0	83
700	Rotifera		0	0	0	0	0	0	0	0	0
703	Brachionus sp.		0	0	0	0	0	0	0	0	0
748	Phoronida larva		0	833	0	150	0	0	0	0	0
821	Bivalvia veliger		0	333	0	150	0	0	0	0	0
850	Polychaeta		0	0	0	0	0	0	0	0	0
851	Polyschaete trochophore		83	0	0	0	0	0	250	0	0
855	spionid larva		417	2333	300	0	0	117	250	600	417

Code	Name	Station	14.0	19	1.0	15.0	17	1.0	15.0	15	1.0
		Depth	14.0	7.0	1.0	15.0	8.0	1.0	15.0	8.0	1.0
880	scaleworm larvae	0	167	100	0	267	0	250	200	0	
		2	8	2	8	10	1	12	12	2	

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Code	Name	Station Depth	10.0	5.0	1.0	14.0	7.0	1.0	6.0	6	1.0
995	green flat macroalgae		0	0	0	0	0	0	0	0	1
			24	9	2	29	34	3	21		5

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
220580	80143	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	oo/o	µg/l	/m			type
1403	3	10.0	18.8	0.1	2.9	4.5	5	-1	ship
1409	3	5.0	18.8	0.1	2.8	4.2	5	-1	ship
1415	3	1.0	18.9	0.1	2.7	3.5	4	-1	ship
1658	657	5.0	19.2	0.0	6.6	2.1	1	-1	ship
1704	657	1.0	19.2	0.1	6.5	2.3	0	-1	ship

	Station	3	657			
	Depth	10.0	5.0	1.0	5.0	1.0

Code	Name	Number per cubic meter					
5	Acartia clausi F	0	0	0	0	0	0
6	Acartia clausi M	0	0	0	0	0	0
7	Acartia clausi C	0	0	0	0	0	0
8	Acartia clausi N	0	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	0	0	0
101	Eurytemora affinis M	0	0	0	0	0	0
102	Eurytemora affinis C	0	0	0	0	0	0
143	Sinocalanus dorii F	150	183	0	0	0	0
144	Sinocalanus dorii M	300	0	100	0	0	0
145	Sinocalanus dorii C	0	183	0	0	0	0
194	copepodite (unknown)	0	0	0	0	0	0
195	copepod nauplius D	0	0	0	0	0	0
199	copepod nauplius	0	0	0	67	0	0
200	Cyclopoida	0	0	0	0	0	133
201	Cyclopoid A (large-low sal)	300	0	300	0	0	0
250	Harpacticoids	300	733	600	67	600	0
251	Harpacticoid B (bronze)	0	0	100	0	0	0
270	Microsetella sp.	0	0	0	0	0	0
300	Amphipoda	0	0	0	0	0	0
325	Synidotea laticauda imm.	0	0	0	0	0	0
333	Neomysis mercedis Juv.	5	0	0	0	0	0
401	barnacle nauplius	0	0	0	0	0	0
420	Ostracoda	0	0	0	0	0	0
441	Bosmina sp.	0	0	100	267	267	0
445	Daphnia pulex	900	1467	700	67	133	0
582	Engraulis mordax larva	0	0	1	0	0	0
602	Tintinnopsis sp. A	0	0	0	0	0	0
603	Tintinnopsis sp. B	0	0	0	0	0	0
681	flatworm sp. A	0	0	0	0	0	0
682	flatworm sp. B	0	0	0	0	0	0
700	Rotifera	0	0	0	0	0	133
703	Brachionus sp.	0	0	0	67	0	0
748	Phoronida larva	0	0	0	0	0	0
821	Bivalvia veliger	0	0	0	0	0	0
850	Polychaeta	0	0	0	0	0	0
851	Polychaete trochophore	0	0	0	0	0	0
855	spionid larva	0	0	0	0	0	0
880	scaleworm larva	0	0	0	0	0	0

	mg Carbon per cubic meter					
	5	4	3	1	2	

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DATE 220580	JULIAN DATE 80143	LOCATION North S.F. Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
650	302	2.0	16.1	17.0	7.6	2.9	0	1	ship
715	306	3.0	16.0	18.9	9.0	2.4	0	1	ship
745	312	1.0	16.5	18.4	25.5	5.8	0	1	ship

Station Depth	302 2.0	306 3.0	312 1.0
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Code	Name	Number per cubic meter		
5	Acartia clausi F	93	0	2222
6	Acartia clausi M	93	0	2667
7	Acartia clausi C	370	500	1778
8	Acartia clausi N	93	0	0
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dori F	0	0	0
144	Sinocalanus dori M	0	0	0
145	Sinocalanus dori C	0	0	0
199	copepod nauplius	0	0	0
250	Harpacticoida	0	0	0
251	Harpacticoid B (bronze)	0	0	0
281	Harpacticoid A N	93	0	0
333	Neomysis mercedis Juv.	0	0	0
401	barnacle nauplius	185	333	0
602	Tintinnopsis sp. A	0	0	0
603	Tintinnopsis sp. B	0	0	0
682	flatworm sp. B	0	0	444
748	Phoronida larva	0	167	0
855	spionid larva	93	500	444

	ug Carbon per cubic meter	
1	2	13

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
220580	80143	North S.F.Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETritus	TIDE	COUNT type
820	318	1.0	17.0	14.1	49.2	10.0	0	0	ship
850	324	1.0	17.4	13.0	28.1	14.8	1	1	ship
935	334	1.0	17.1	16.4	11.2	2.2	1	1	ship

Station Depth	318 1.0	324 1.0	334 1.0
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Code	Name	Number per cubic meter
5	Acartia clausi F	833
6	Acartia clausi M	0
7	Acartia clausi C	10833
8	Acartia clausi N	833
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dori F	0
144	Sinocalanus dori M	0
145	Sinocalanus dori C	0
199	copepod nauplius	0
250	Harpacticoida	0
251	Harpacticoid B (bronze)	0
281	Harpacticoid A N	0
333	Neomysis mercedis juv.	0
401	barnacle nauplius	0
602	Tintinnopsis sp. A	833
603	Tintinnopsis sp. B	0
682	flatworm sp. B	0
748	Phoronida larva	0
855	spionid larva	1667

	mg Carbon per cubic meter
15	11
	1

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
220580	80143	North S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1255	414	0.5	19.6	0.5	23.2	16.1	3	-1	ship
1325	418	1.0	18.3	0.5	41.4	32.1	5	-1	ship

Station	414	418
Depth	0.5	1.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
100	Eurytemora affinis F	97
101	Eurytemora affinis M	194
102	Eurytemora affinis C	194
143	Sinocalanus dorii F	194
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	97
199	copepod nauplius	97
250	Harpacticoida	194
251	Harpacticoid B (bronze)	97
281	Harpacticoid A N	0
333	Neomysis mercedis Juv.	0
401	barnacle nauplius	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
682	flatworm sp. B	0
748	Phoronida larva	0
855	spionid larva	0

ms Carbon per cubic meter	
3	3

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DATE 50680	JULIAN DATE 80157	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
619	17	14.0	12.3	31.0	6.8	1.3	2	0	ship
625	17	7.0	12.5	30.6	3.9	0.8	2	0	ship
631	17	1.0	13.6	29.8	3.9	0.7	0	0	ship
759	15	11.0	14.0	27.0	4.0	1.6	0	-1	ship
805	15	5.0	14.8	24.1	4.0	1.4	0	-1	ship
811	15	1.0	15.2	21.5	5.8	1.7	0	-1	ship
929	13	9.0	14.9	23.6	6.3	1.6	1	-1	ship
935	13	5.0	14.9	23.6	6.3	1.5	0	-1	ship
942	13	1.0	16.2	14.9	10.2	1.6	0	-1	ship

	Station Depth	17 14.0	17 7.0	1.0	11.0	15 5.0	1.0	9.0	13 5.0	1.0
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Code	Name									
Number per cubic meter										
5	Acartia clausi F	2200	2400	0	167	0	0	2800	3800	0
6	Acartia clausi M	0	0	0	167	0	0	0	600	0
7	Acartia clausi C	2400	1400	0	1167	2133	1867	2133	8600	67
8	Acartia clausi N	400	800	1600	2500	5867	667	133	2200	0
100	Eurytemora affinis F	0	0	0	0	0	0	0	0	0
101	Eurytemora affinis M	0	0	0	0	0	0	0	0	0
102	Eurytemora affinis C	0	0	0	0	0	0	0	0	0
143	Sinocalanus dorii F	0	0	0	0	0	0	0	0	0
144	Sinocalanus dorii M	0	0	0	0	0	0	0	0	0
145	Sinocalanus dorii C	0	0	0	0	0	0	0	0	0
194	copepodite (unknown)	0	0	0	0	0	0	0	0	0
201	Cyclopoid A (large-low sal)	0	0	0	0	0	0	0	0	0
250	Harpacticoida	400	600	0	0	267	0	0	0	0
251	Harpacticoid B (bronze)	0	0	0	0	0	0	0	0	0
333	Neomysis mercedis Juv.	0	0	0	0	0	0	0	0	0
401	barnacle nauplius	1400	2400	1200	2000	10400	4000	0	1400	67
402	barnacle cypris	200	200	0	0	0	0	267	200	0
440	Cladocera	0	0	0	0	0	0	0	0	0
441	Bosmina sp.	0	0	0	0	0	0	0	0	0
445	Daphnia pulex	0	0	0	0	0	0	0	0	0
560	fish larva	0	0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	0	200	0	333	133	0	0	3800	0
603	Tintinnopsis sp. B	1800	5000	0	0	0	0	0	0	0
630	coiled Foraminifera	0	0	133	0	0	0	0	0	0
682	flatworm sp. B	0	0	133	0	0	0	0	0	0
700	Rotifera	0	0	0	0	0	0	0	0	0
748	Phoronida larva	200	200	133	0	0	0	667	200	0
821	Bivalvia veliger	0	0	0	167	0	0	0	0	0
851	polychaete trochophore	0	0	0	0	0	0	133	0	0
855	spionid larva	0	400	267	167	267	800	800	200	0
880	scaleworm larva	0	400	267	500	533	0	0	0	0

mg Carbon per cubic meter										
11	15	3	6	20	9	12	22	0		

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ZOOPLANKTON

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DATE 50680	JULIAN DATE 80157	LOCATION North S.F. Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETritus	TIDE	COUNT type
1159	9	9.0	16.9	8.6	17.5	6.9	3	-1	ship
1205	9	5.0	16.9	8.2	17.0	6.9	3	-1	ship
1211	9	1.0	16.9	7.0	16.5	5.0	2	-1	ship
1345	6	6.0	18.2	0.3	9.2	5.3	6	-1	ship
1351	6	1.0	18.2	0.4	9.9	5.9	5	-1	ship
1527	3	9.0	18.4	0.1	5.0	2.5	5	-1	ship
1533	3	5.0	18.4	0.1	4.9	2.3	5	-1	ship
1539	3	1.0	18.4	0.1	4.8	2.4	4	-1	ship

	Station Depth	9	6	3				
	9.0	5.0	1.0	6.0	1.0	9.0	5.0	1.0

Code	Name	Number per cubic meter							
5	Acartia clausi F	1375	1750	1250	0	0	0	0	0
6	Acartia clausi M	0	0	0	0	0	0	0	0
7	Acartia clausi C	917	1000	0	0	0	0	0	0
8	Acartia clausi N	0	500	0	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	800	333	0	0	0
101	Eurytemora affinis M	0	0	0	600	333	0	0	0
102	Eurytemora affinis C	0	0	0	800	500	125	0	0
143	Sinocalanus dorii F	0	0	0	600	667	1375	1000	0
144	Sinocalanus dorii M	0	0	0	200	333	375	400	133
145	Sinocalanus dorii C	0	0	0	1000	1000	0	0	133
194	copepodite (unknown)	0	0	0	0	0	125	200	0
201	Cyclopoid A (large-low sal)	0	0	0	200	500	125	1000	0
250	Harpacticoida	0	0	208	0	0	125	0	0
251	Harpacticoid B (bronze)	0	250	0	200	667	0	200	0
333	Neomysis mercedis Juv.	2	0	6	0	0	1	0	0
401	barnacle nauplius	3208	5750	417	0	0	0	0	0
402	barnacle cypris	0	0	0	0	0	0	0	0
440	Cladocera	0	0	0	0	0	125	0	0
441	Bosmina sp.	0	0	0	0	0	625	1000	667
445	Daphnia pulex	0	0	0	200	500	125	1600	400
560	fish larva	0	2	0	0	0	0	0	0
602	Tintinnopsis sp. A	917	0	208	0	0	0	0	0
603	Tintinnopsis sp. B	0	0	0	0	0	0	0	0
630	coiled Foraminifera	0	0	0	0	0	0	0	0
682	flatworm sp. B	0	0	0	0	0	0	0	0
700	Rotifera	0	0	0	0	0	0	0	0
748	Phoronida larva	0	0	0	0	0	0	0	0
821	Bivalvia veliger	0	0	0	0	0	0	0	0
851	Polychaete trochophore	0	0	0	0	0	0	0	0
855	spionid larva	0	0	0	0	0	0	0	0
880	scaleworm larva	0	0	0	0	0	0	0	0

	ms Carbon per cubic meter							
	9	15	4	15	16	16	19	3

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
50680	80157	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
1714	657	7.0	19.2	0.1	7.2	2.7	3	-1	ship
1720	657	1.0	19.2	0.1	7.3	2.6	2	-1	ship

Station
Depth 657
 7.0 1.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
144	Sinocalanus dorii M	133
145	Sinocalanus dorii C	0
194	copepodite (unknown)	0
201	Cyclopoid A (large-low sal)	133 200
250	Harpacticoida	133
251	Harpacticoid B (bronze)	0
333	Neomysis mercedis juv.	0
401	barnacle nauplius	0
402	barnacle cypris	0
440	Cladocera	133
441	Bosmina sp.	133 100
445	Daphnia pulex	0
560	fish larva	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
630	coiled Foraminifera	0
682	flatworm sp. B	0
700	Rotifera	266
748	Phoronida larva	0
821	Bivalvia veliger	0
851	Polychaete trochophore	0
855	spionid larva	0
880	scaleworm larva	0

mg Carbon per cubic meter

2 1

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DATE 50680	JULIAN DATE 80157	LOCATION North S.F. Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /#	DETritus	TIDE	COUNT type
700	302	1.0	15.7	17.1	5.3	-	0	-1	ship
725	306	3.0	15.8	17.7	6.7	-	0	-1	ship
800	312	1.0	16.1	17.9	29.4	-	0	-1	ship

Station	302	306	312
Depth	1.0	3.0	1.0

Code	Name	Number per cubic meter
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5	Acartia clausi F	0	3000	0
6	Acartia clausi M	0	2000	0
7	Acartia clausi C	917	5000	2750
8	Acartia clausi N	1833	2500	0
143	Sinocalanus dorii F	0	0	0
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	0
199	copepod nauplius	0	0	0
201	Cyclopoid A (large-low sal)	0	0	0
250	Harpacticoida	0	0	0
325	Synidotea laticauda imm.	0	0	0
401	barnacle nauplius	2750	2000	917
441	Bosmina sp.	0	0	0
445	Daphnia pulex	0	0	0
560	fish larva	0	0	0
602	Tintinnopsis sp. A	3208	2500	3667
603	Tintinnopsis sp. B	0	0	0
681	flatworm sp. A	0	500	0
801	Gastropod veliger	458	0	0
821	Bivalvia veliger	0	0	0
855	spionid larva	917	1000	458
880	scaleworm larva	917	500	0

mg Carbon per cubic meter

9	23	5
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DATE 50680	JULIAN DATE 80157	LOCATION North S.F.Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
835	318	1.0	16.7	16.4	43.3	-	0	-1	ship
915	324	1.0	17.6	17.8	25.1	-	1	-1	ship
1005	334	1.0	16.6	15.5	15.5	-	1	-1	ship

Station	318	324	334
Depth	1.0	1.0	1.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	9750
8	Acartia clausi N	4500
143	Sinocalanus dorii F	0
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	0
199	copepod nauplius	0
201	Cyclopoid A (large-low sal)	0
250	Harpacticoids	0
325	Synidotea laticauda imm.	750
401	barnacle nauplius	3750
441	Bosmina sp.	0
445	Daphnia pulex	0
560	fish larva	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	750
681	flatworm sp. A	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
855	spionid larva	1500
880	scaleworm larva	0

17	mg Carbon per cubic meter	40	6
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
50680	80157	North S.F.Bay	Estero	64					
TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCDF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
1305	414	1.0	19.5	1.0	33.4	-	1	-1	ship
1340	420	1.0	18.7	0.9	28.9	-	1	-1	ship
1615	757	5.0	19.0	0.2	2.0	-	5	-1	ship

Code	Name	Station	Depth	414	420	757
				1.0	1.0	5.0
5	Acartia clausi F			0	0	0
6	Acartia clausi M			0	0	0
7	Acartia clausi C			0	0	0
8	Acartia clausi N			0	0	0
143	Sinocalanus dorii F			167	0	333
144	Sinocalanus dorii M			333	0	667
145	Sinocalanus dorii C			0	0	667
199	copepod nauplius			0	83	0
201	Cyclopoid A (large-low sal)			333	167	333
250	Harpacticoida			167	83	167
325	Synidotea laticauda imm.			0	0	0
401	barnacle nauplius			0	0	0
441	Bosmina sp.			0	0	833
445	Daphnia pulex			0	0	1000
560	fish larva			0	0	0
602	Tintinnopsis sp. A			0	0	0
603	Tintinnopsis sp. B			0	0	0
681	flatworm sp. A			0	0	0
801	Gastropod veliger			0	0	0
821	Rivalvizia veliger			0	0	0
855	spionid larva			0	0	0
880	scaleworm larva			0	0	0

	ms Carbon per cubic meter	
5	1	13

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DATE 180680	JULIAN DATE 80170	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64						
TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type	
615	17	11.0	13.3	30.6	1.4	0.7	1	-1	ship	
621	17	7.0	13.3	30.6	1.6	0.8	1	-1	ship	
627	17	1.0	13.8	30.0	1.6	0.8	1	-1	ship	
801	15	10.0	15.9	25.2	2.2	1.7	0	-1	ship	
807	15	5.0	16.2	24.0	2.5	2.3	0	-1	ship	
813	15	1.0	16.6	23.1	2.7	2.6	0	-1	ship	
941	13	8.0	16.6	22.0	7.9	3.3	4	-1	ship	
947	13	5.0	16.6	22.0	7.9	3.3	3	-1	ship	
1003	13	1.0	17.2	18.9	8.6	1.6	0	-1	ship	

Code	Name	Station Depth	11.0	17	1.0	10.0	15	1.0	8.0	13	5.0	1.0
			11.0	7.0	1.0	10.0	5.0	1.0	8.0	5.0	1.0	
5	Acartia clausi F	1333	600	0	117	133	0	200	0	0	0	0
6	Acartia clausi M	167	0	167	0	0	0	0	0	0	0	0
7	Acartia clausi C	1167	1000	833	583	667	500	800	1875	0	0	0
8	Acartia clausi N	1167	0	0	233	600	1167	600	5208	367	0	0
100	Eurytemora affinis F	0	0	0	0	0	0	0	0	0	0	0
101	Eurytemora affinis M	0	0	0	0	0	0	0	0	0	0	0
102	Eurytemora affinis C	0	0	0	0	0	0	0	0	0	0	0
143	Sinocalanus dorii F	0	0	0	0	0	0	0	0	0	0	0
144	Sinocalanus dorii M	0	0	0	0	0	0	0	0	0	0	0
145	Sinocalanus dorii C	0	0	0	0	0	0	0	0	0	0	0
195	copepod nauplius D	167	0	0	0	0	0	0	0	0	0	0
196	copepod nauplius A	167	0	0	0	0	0	0	0	0	0	0
197	copepod nauplius B	0	0	0	0	0	0	0	0	0	0	0
199	copepod nauplius	0	0	0	0	0	0	0	0	0	0	0
201	Cyclopoid A (large-low sal)	0	0	0	0	0	0	0	0	0	0	0
250	Harpacticoida	500	200	0	117	133	167	200	0	0	0	0
251	Harpacticoid B (bronze)	0	0	0	0	0	0	0	0	0	0	0
280	Harpacticoid sp. A	0	0	167	0	0	0	0	0	0	0	0
281	Harpacticoid A N	167	0	0	0	0	0	0	0	0	0	0
333	Neomysis mercedis juv.	0	0	0	0	0	0	0	0	0	0	0
376	Crustacean sp.	0	0	0	0	0	0	0	0	0	0	0
401	barnacle nauplius	2500	2000	2333	2917	5867	9667	5800	4167	1925	0	0
440	Cladocera	0	0	0	0	0	0	0	0	0	0	0
441	Bosmina sp.	0	0	0	0	0	0	0	0	0	0	0
445	Daphnia pulex	0	0	0	0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	0	0	0	0	0	267	0	1000	2083	1100	0
603	Tintinnopsis sp. B	833	0	667	0	0	0	0	600	625	0	0
608	Parafavella sp.	1333	0	500	0	0	0	0	0	0	0	0
660	Hydrozoa	0	1	0	0	0	0	0	0	0	0	0
682	flatworm sp. B	167	0	0	0	0	0	0	0	0	0	0
748	Phoronida larva	167	0	0	0	0	0	0	0	0	0	0
821	Bivalvia veliger	0	200	0	0	0	0	0	0	0	0	0
851	polychaete trochophore	0	0	500	0	67	0	0	0	0	0	0
855	spionid larva	500	600	333	233	200	333	0	208	92	0	0
880	scaleworm larva	167	400	167	0	67	500	0	0	0	0	0

mg Carbon per cubic meter

11 8 6 6 11 17 10 9 3

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
180680	80170	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1154	9	9.0	18.7	8.3	16.0	5.0	1	-1	ship
1200	9	5.0	18.7	7.6	15.8	4.0	2	-1	ship
1206	9	1.0	18.9	7.3	15.8	3.4	1	-1	ship
1352	6	5.0	20.3	0.4	7.9	6.8	5	-1	ship
1358	6	1.0	20.4	0.5	9.0	6.8	4	-1	ship
1533	3	10.0	20.7	0.1	5.4	4.5	4	-1	ship
1539	3	5.0	20.7	0.1	5.2	4.3	3	-1	ship
1545	3	1.0	20.8	0.1	5.0	4.2	3	-1	ship

Code	Name	Station	9	6	3				
		Depth	9.0	5.0	1.0	5.0	1.0	10.0	5.0
5	Acartia clausi F	250	923	0	0	0	0	0	0
6	Acartia clausi M	250	0	0	0	0	0	0	0
7	Acartia clausi C	500	231	0	0	0	0	0	0
8	Acartia clausi N	500	0	167	0	0	0	0	0
100	Eurytemora affinis F	0	231	0	533	167	0	0	133
101	Eurytemora affinis M	0	0	0	1333	167	133	50	0
102	Eurytemora affinis C	0	0	0	533	0	0	0	0
143	Sinocalanus dorii F	0	0	0	1733	0	667	50	133
144	Sinocalanus dorii M	0	0	0	133	83	400	0	0
145	Sinocalanus dorii C	0	0	0	800	333	533	50	0
195	copepod nauplius D	0	0	0	0	0	0	0	0
196	copepod nauplius A	0	0	0	0	0	0	0	0
197	copepod nauplius B	0	0	167	0	0	0	0	67
199	copepod nauplius	0	0	0	0	83	0	100	0
201	Cyclopoid A (large-low sal)	0	0	0	133	0	267	100	0
250	Harpacticoids	0	0	0	0	0	0	50	133
251	Harpacticoid B (bronze)	250	0	0	133	167	133	0	0
280	Harpacticoid sp.A	0	0	0	0	0	0	0	0
281	Harpacticoid A N	0	0	0	0	0	0	0	0
333	Neomysis mercedis juv.	0	5	0	0	0	0	0	0
376	Crangon sp.	1	0	0	0	0	0	0	0
401	barnacle nauplius	2000	7154	1333	0	0	0	0	0
440	Cladocera	0	0	0	0	0	0	0	67
441	Bosmina sp.	0	0	0	0	0	0	50	0
445	Daphnia pulex	0	0	0	0	0	0	150	67
602	Tintinnopsis sp. A	21250	12462	2000	0	0	0	0	0
603	Tintinnopsis sp. B	0	0	0	0	0	0	0	0
608	Parafavella sp.	0	0	0	0	0	0	0	0
660	Hydrozoa	0	0	0	0	0	0	0	0
682	flatworm sp. B	0	0	0	0	0	0	0	0
748	Phoronida larva	0	0	0	0	0	0	0	0
821	Bivalvia veliger	0	0	0	0	0	0	50	0
851	polychaete trochophore	0	0	0	0	0	0	0	0
855	spionid larva	500	231	333	0	0	0	0	0
880	scaleworm larva	0	0	0	0	0	0	0	0

			mg Carbon per cubic meter			
6	15	3	23	3	11	1
						2

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
180680	80170	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETритUS	TIDE	COUNT type
1718	657	3.0	20.7	0.0	5.5	1.9	3	-1	ship

Station
Depth

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	0
195	copepod nauplius D	0
196	copepod nauplius A	0
197	copepod nauplius B	0
199	copepod nauplius	0
201	Cyclopoid A (large-low sal)	0
250	Harpacticoida	0
251	Harpacticoid B (bronze)	0
280	Harpacticoid sp,A	0
281	Harpacticoid A N	0
333	Neomysis mercedis juv.	0
376	Crassion sp.	0
401	barnacle nauplius	0
440	Cladocera	0
441	Rosmina sp.	450
445	Daphnia pulex	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
608	Parafavella sp.	0
660	Hydrozoa	0
682	flatworm sp. B	0
748	Phoronida larva	0
821	Bivalvia veliger	0
851	polychaete trochophore	0
855	spionid larva	0
880	scaleworm larva	0

ug Carbon per cubic meter

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DATE 180680	JULIAN DATE 80170	LOCATION North S.F.Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
707	302	1.0	16.6	23.2	3.8	2.4	1	-1	ship
800	312	1.0	19.2	18.7	9.4	8.6	4	-1	ship
840	318	0.5	18.4	16.4	42.8	-	0	-1	ship

	Station Depth	302 1.0	312 1.0	318 0.5
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Code	Name	Number per cubic meter		
5	Acartia clausi F	333	1000	227
6	Acartia clausi M	0	333	0
8	Acartia clausi N	167	167	227
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	0
194	corepodite (unknown)	0	0	0
198	corepod nauplius C	0	0	0
199	corepod nauplius	0	0	0
201	Cyclopoid A (large-low sal)	0	0	0
250	Harpacticoids	667	0	0
251	Harpacticoid B (bronze)	0	0	0
401	barnacle nauplius	2167	0	0
441	Bosmina sp.	0	0	0
445	Daphnia pulex	0	0	0
560	fish larva	0	0	0
602	Tintinnopsis sp. A	167	0	1364
603	Tintinnopsis sp. B	0	4500	455
740	Nematoda	0	0	0
748	Phoronida larva	167	0	0
801	Gastropod veliger	0	167	0
821	Bivalvia veliger	0	0	682
851	Polychaete trochophore	0	0	227
852	Polychaete larva	0	0	0
855	spionid larva	0	167	682
880	scaleworm larva	0	0	909

ug Carbon per cubic meter		
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5	4	5
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
180680	80170	North S.F.Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETritus	TIDE	COUNT type
1107	404	2.0	19.3	4.7	10.9	5.4	1	-1	ship
1200	414	0.5	21.0	1.7	37.5	15.1	3	-1	ship
1235	418	0.3	21.2	1.3	36.9	12.0	0	-1	ship

	Station	404	414	418
	Depth	2.0	0.5	0.3

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
8	Acartia clausi N	0
100	Eurytemora affinis F	222
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	111
194	copepodite (unknown)	0
198	copepod nauplius C	222
199	copepod nauplius	0
201	Cyclopoid A (large-low sal)	0
250	Harpacticoida	0
251	Harpacticoid B (bronze)	0
401	barnacle nauplius	1222
441	Bosmina sp.	0
445	Daphnia pulex	0
560	fish larva	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
740	Nematoda	0
748	Phoronida larva	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
851	polychaete trochophore	0
852	polychaete larva	0
855	spionid larva	0
880	scaleworm larva	0

	mg Carbon per cubic meter
2	4
4	4

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DATE 180680	JULIAN DATE 80170	LOCATION North S.F.Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /#	DETritus	TIDE	COUNT type
1414	438	2.5	20.9	0.4	11.1	5.6	4	-1	ship
1703	757	4.0	21.4	0.2	3.8	2.9	2	-1	ship

Station Depth

	438	757
	2.5	4.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	50
8	Acartia clausi N	0
100	Eurytemora affinis F	267
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	1200
144	Sinocalanus dorii M	400
145	Sinocalanus dorii C	133
194	copepodite (unknown)	0
198	copepod nauplius C	0
199	copepod nauplius	50
201	Cyclopoid A (large-low sal)	0
250	Harpacticoida	100
251	Harpacticoid B (bronze)	150
401	barnacle nauplius	0
441	Bosmina sp.	133
445	Daphnia pulex	0
560	fish larva	250
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
740	Nematoda	0
748	Phoronida larva	50
801	Gastropod veliger	0
821	Bivalvia veliger	0
851	Polychaete trochophore	50
852	Polychaete larva	0
855	spionid larva	0
880	scaleworm larva	0

mg Carbon per cubic meter

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DATE 20780	JULIAN DATE 80184	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64								
TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETритUS	TIDE	COUNT type			
1500	19	14.0	13.9	30.6	4.6	0.9	3	1	ship			
1506	19	7.0	13.9	30.5	4.6	0.9	3	1	ship			
1512	19	1.0	13.9	30.4	4.6	0.9	1	1	ship			
1350	17	12.0	15.2	28.3	1.5	1.6	4	1	ship			
1356	17	6.0	15.3	27.9	1.4	1.6	3	1	ship			
1402	17	1.0	16.0	26.4	1.4	1.2	1	1	ship			
1232	15	14.0	16.9	23.6	3.5	2.6	4	1	ship			
1238	15	7.0	17.6	20.4	2.5	4.6	3	1	ship			
1244	15	1.0	18.1	19.0	2.5	7.9	0	1	ship			
		Station Depth	19 14.0	19 7.0	1.0	12.0	17 6.0	1.0	14.0	15 7.0	1.0	
Code	Name						Number per cubic meter					
5	Acartia clausi F		400	600	0	267	583	0	533	1200	100	
6	Acartia clausi M		0	0	0	0	233	0	1867	533	100	
7	Acartia clausi C		1200	1900	500	800	1750	2083	2000	4267	1800	
8	Acartia clausi N		1467	1100	200	0	1050	1000	133	133	100	
60	Paracalanus parvus F		0	0	0	133	0	0	0	0	0	
61	Paracalanus parvus M		0	0	0	133	0	0	0	0	0	
62	Paracalanus parvus C		133	0	0	0	0	0	0	0	0	
70	Pseudocalanus sp.A F		133	0	0	0	0	0	0	0	0	
100	Eurytemora affinis F		0	0	0	0	0	0	0	0	0	
101	Eurytemora affinis M		0	0	0	0	0	0	0	0	0	
102	Eurytemora affinis C		0	0	0	0	0	0	0	0	0	
143	Sinocalanus dorii F		0	0	0	0	0	0	0	0	0	
144	Sinocalanus dorii M		0	0	0	0	0	0	0	0	0	
145	Sinocalanus dorii C		0	0	0	0	0	0	0	0	0	
192	Epilabidocera longispinata C		0	100	0	0	0	0	0	0	0	
194	corepodite (unknown)		0	0	0	0	0	0	0	0	0	
196	corepod nauplius A		133	0	0	0	0	0	0	0	0	
197	corepod nauplius B		0	0	0	0	0	0	0	0	0	
199	corepod nauplius		1333	400	1700	0	0	250	133	0	0	
200	Cyclopoida		0	100	0	0	0	0	0	0	0	
250	Harpacticoida		267	0	100	400	583	0	133	0	100	
251	Harpacticoid R (bronze)		133	0	0	0	0	0	0	0	0	
280	Harpacticoid sp.A		133	200	100	0	117	0	0	0	0	
281	Harpacticoid A N		0	0	0	0	0	83	0	0	0	
321	Isopoda imm.		0	0	0	0	0	0	133	0	0	
401	barnacle nauplius		133	1500	200	5600	7117	6833	1333	14000	10000	
402	barnacle cypris		0	0	0	0	0	0	0	0	0	
445	Daphnia pulex		0	0	0	0	0	0	0	0	0	
602	Tintinnopsis sp. A		0	0	0	0	0	83	267	133	100	
603	Tintinnopsis sp. B		133	0	0	0	0	83	0	0	0	
608	Parafavella sp.		533	2200	6500	400	0	167	0	0	0	
681	flatworm sp. A		0	0	0	0	0	0	0	0	0	
682	flatworm sp. B		0	0	100	0	0	0	0	0	0	
701	Synchaeta sp.		400	100	0	0	0	0	0	0	0	
703	Brachionus sp.		0	0	0	0	0	0	0	0	0	
740	Nematoda		0	0	0	0	0	0	0	0	0	
748	Phoronida larva		0	0	0	0	0	117	0	0	0	

Code	Name	Station Depth	14.0	19	7.0	1.0	12.0	17	6.0	1.0	14.0	15	7.0	1.0
			Number per cubic meter											
801	Gastropod veliger		133		0	0		0	117	167	533	0	0	0
821	Bivalvia veliger		0		0	0		0	0	83	0	133	0	0
852	polychaete larva		0		0	0		0	0	0	0	0	0	0
855	spionid larva		267		200	100		133	817	250	0	0	0	200
880	scaleworm larva		267		200	0		267	117	0	0	0	0	0
									ms Carbon per cubic meter					
								6	8	2	12	17	13	
											8	29	17	

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Station	13	9	6
Depth	7.5	4.0	1.0

Code **Name** **Number per cubic meter**

821	Bivalvia veliger	0	0	242	0	133	0	0	0
852	polychaete larva	0	0	121	0	0	0	0	0
855	spionid larva	0	133	0	0	0	0	133	300
880	scaleworm larva	0	0	121	0	0	0	0	0

as Carbon per cubic meter

14 20 31 25 12 7 11 7

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DATE 20780	JULIAN DATE 80184	LOCATION North S.F. Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF #/m	DETritus	TIDE	COUNT type
752	3	10.0	20.3	0.7	10.4	7.4	4	-1	ship
758	3	5.0	20.3	0.6	9.2	6.2	4	-1	ship
804	3	1.0	20.3	0.6	7.4	5.8	1	-1	ship
555	657	6.0	20.2	0.0	2.7	2.6	2	0	ship
601	657	1.0	20.2	0.0	2.7	2.6	1	0	ship

Code	Name	Station	3	657	1.0
		Depth	10.0		
5	Acartia clausi F	0	0	0	0
6	Acartia clausi M	0	0	0	0
7	Acartia clausi C	0	0	0	0
8	Acartia clausi N	0	0	0	0
60	Paracalanus parvus F	0	0	0	0
61	Paracalanus parvus M	0	0	0	0
62	Paracalanus parvus C	0	0	0	0
70	Pseudocalanus sp.A F	0	0	0	0
100	Eurytemora affinis F	300	500	300	0
101	Eurytemora affinis M	300	100	150	0
102	Eurytemora affinis C	600	400	1050	0
143	Sinocalanus dorii F	400	1100	150	133
144	Sinocalanus dorii M	400	200	150	267
145	Sinocalanus dorii C	500	1200	450	0
192	Epilabidocera longipedata C	0	0	0	0
194	copepodite (unknown)	0	300	450	0
196	copepod nauplius A	0	0	0	0
197	copepod nauplius B	0	0	0	0
199	copepod nauplius	0	0	0	133
200	Cyclopoida	0	0	0	0
250	Harpacticoida	0	0	0	133
251	Harpacticoid B (bronze)	1200	400	450	0
280	Harpacticoid sp.A	0	0	0	0
281	Harpacticoid A N	0	0	0	0
321	Isopoda imm.	0	1	0	3
401	barnacle nauplius	0	0	0	0
402	barnacle cypris	0	0	0	0
445	Daphnia pulex	0	0	0	67
602	Tintinnopsis sp. A	0	0	0	0
603	Tintinnopsis sp. B	0	0	0	0
608	Parafavella sp.	0	0	150	0
681	flatworm sp. A	0	0	0	0
682	flatworm sp. B	0	0	0	0
701	Synchaeta sp.	0	0	0	0
703	Brachionus sp.	100	0	0	0
740	Nematoda	0	0	0	0
748	Phoronida larva	0	0	0	0
801	Gastropod veliger	0	0	0	0
821	Bivalvia veliger	0	0	0	67
852	polychaete larva	0	0	0	0
855	spionid larva	0	0	0	0

Code	Name	Station	10.0	3	1.0	6.0	657	1.0
		Depth						
880	scaleworm larva		0	0	0	0	0	
			11	17	8	3	5	ms Carbon per cubic meter

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DATE 170780	JULIAN DATE 80199	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64							
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type		
621	17	10.0	14.9	30.1	1.6	0.5	0	-1	ship		
627	17	5.0	14.9	30.1	1.6	0.6	1	-1	ship		
633	17	1.0	15.6	29.1	2.2	0.7	0	-1	ship		
750	15	8.0	17.6	24.0	1.2	0.4	0	-1	ship		
756	15	5.0	17.9	23.1	1.3	0.8	0	-1	ship		
802	15	1.0	18.2	22.7	1.5	1.2	2	-1	ship		
916	13	9.0	17.9	23.3	1.5	3.0	4	-1	ship		
922	13	5.0	17.9	22.9	1.3	2.0	4	-1	ship		
928	13	1.0	18.5	17.5	2.5	1.5	0	-1	ship		
		Station Depth	10.0	17 5.0	1.0	8.0	15 5.0	1.0	9.0	13 5.0	1.0
Code	Name						Number per cubic meter				
5	Acartia clausi F		1200	2133	0	267	700	133	1066	1333	0
6	Acartia clausi M		533	133	0	0	0	0	1600	667	0
7	Acartia clausi C		3333	9600	4000	4667	4200	1733	7067	6333	933
8	Acartia clausi N		1067	400	5067	7733	2683	933	1467	2167	3200
10	Acartia californiensis F		0	0	0	133	0	0	133	0	0
100	Eurytemora affinis F		0	0	0	0	0	0	0	0	0
101	Eurytemora affinis M		0	0	0	0	0	0	0	0	0
102	Eurytemora affinis C		0	0	0	0	0	0	0	0	0
143	Sinocalanus dorii F		0	0	0	0	0	0	0	0	0
144	Sinocalanus dorii M		0	0	0	0	0	0	0	0	0
145	Sinocalanus dorii C		0	0	0	0	0	0	0	0	0
195	copepod nauplius D		0	0	133	0	0	0	0	0	0
197	copepod nauplius B		0	0	0	0	0	0	0	0	0
199	copepod nauplius		0	0	0	0	0	0	0	0	0
200	Cyclopoida		0	133	0	0	0	133	0	0	0
210	Oithona spp.		133	0	0	0	0	0	0	0	0
250	Harpacticoida		133	267	0	667	0	267	0	0	0
251	Harpacticoid B (bronze)		0	0	0	0	0	0	0	0	0
280	Harpacticoid sp. A		133	0	0	0	0	0	0	167	0
325	Synidotes laticauda imm.		0	0	0	0	0	0	400	0	0
333	Neomysis mercedis juv.		0	0	0	0	0	0	0	0	0
370	Natantia zoea		133	133	0	0	0	0	0	0	0
391	euphausiid nauplius		0	0	0	0	0	0	0	167	0
401	barnacle nauplius		267	533	800	3333	3267	4933	4400	4833	6133
402	barnacle cypris		0	133	0	0	0	0	0	0	0
602	Tintinnopsis sp. A		0	0	0	0	700	933	1333	2333	133
603	Tintinnopsis sp. B		0	0	0	0	117	17733	6267	8333	5733
604	Tintinnid sp. C		0	0	0	0	0	0	400	0	0
605	Eutintinnius neriticus		0	0	0	0	0	0	267	0	0
608	Parafavella sp.		133	0	267	0	0	0	0	0	0
682	flatworm sp. B		0	0	0	0	0	0	133	0	0
701	Synchaeta sp.		400	0	267	0	0	0	0	167	0
703	Brachionus sp.		0	0	0	0	0	0	0	0	0
740	Nematoda		0	0	0	0	0	0	0	0	0
801	Gastropod veliger		0	0	0	0	0	0	0	333	0
821	Bivalvia veliger		0	0	0	0	0	133	133	167	0
851	polychaete trochophore		0	0	133	0	117	0	0	0	0

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Code	Name	Station Depth	9.0	5.0	1.0	8.0	5.0	1.0	10.0	5.0	3
			9.0	5.0	1.0	8.0	5.0	1.0	10.0	5.0	1.0
855	spionid larva		0	133	0	0	0	0	0	0	0
880	scaleworm larva		0	0	0	0	0	0	0	0	0
901	Insects		0	0	0	0	0	0	0	67	0
						ms Carbon per cubic meter					
			16	17	6	13	11	8	3	7	5

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ZOOPLANKTON

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
170780	80199	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETритUS	TIDE	COUNT type
1757	657	5.0	23.2	0.0	8.0	1.8	3	-1	ship
1733	657	1.0	23.3	0.0	8.0	1.8	3	-1	ship

Station
Depth 657
 5.0 1.0

Code	Name	Number per cubic meter	
5	Acartia clausi F	0	0
6	Acartia clausi M	0	0
7	Acartia clausi C	0	0
8	Acartia clausi N	0	0
10	Acartia californiensis F	0	0
100	Eurytemora affinis F	0	0
101	Eurytemora affinis M	0	0
102	Eurytemora affinis C	0	0
143	Sinocalanus dorii F	33	25
144	Sinocalanus dorii M	33	0
145	Sinocalanus dorii C	33	0
195	copepod nauplius D	0	0
197	copepod nauplius B	0	0
199	copepod nauplius	0	0
200	Cyclopoida	0	50
210	Dithona spp.	0	0
250	Harpacticoida	0	0
251	Harpacticoid B (bronze)	0	0
280	Harpacticoid sp.A	0	0
325	Synidotea laticauda imm.	0	0
333	Neomysis mercedis juv.	0	0
370	Natantia zoea	0	0
391	eurhausid nauplius	0	0
401	barnacle nauplius	0	0
402	barnacle cypris	0	0
602	Tintinnopsis sp. A	0	0
603	Tintinnopsis sp. B	0	0
604	Tintinnid sp.C	0	0
605	Eutintinnus neriticus	0	0
608	Parafavella sp.	0	0
682	flatworm sp. B	0	0
701	Synchaeta sp.	0	0
703	Brachionus sp.	0	25
740	Nematoda	0	0
801	Gastropod veliger	0	0
821	Bivalvia veliger	33	0
851	polychaete trochophore	0	0
855	spionid larva	0	0
880	scaleworm larva	0	0
901	Insecta	0	0

mg Carbon per cubic meter

1 0

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ZOOPLANKTON

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DATE 170780	JULIAN DATE 80199	LOCATION North S.F. Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a ug/l	EXCOF /m	DETITUS	TIDE	COUNT type
715	302	2.0	18.0	23.8	0.9	1.7	4	-1	ship
745	306	3.0	18.8	21.2	1.7	2.3	3	-1	ship
815	312	1.0	20.9	18.6	17.0	8.7	1	-1	ship

	Station Depth	302 2.0	306 3.0	312 1.0
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Code	Name	Number per cubic meter		
5	Acartia clausi F	1333	1000	8000
6	Acartia clausi M	1143	1000	2667
7	Acartia clausi C	1714	11333	10667
8	Acartia clausi N	190	2000	3333
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	0
199	copepod nauplius	0	0	0
200	Cyclopoida	0	0	0
250	Harpacticoids	190	667	0
251	Harpacticoid B (bronze)	0	0	0
325	Synidotea laticauda imm.	0	333	0
333	Neomysis mercedis juv.	0	0	0
401	barnacle nauplius	381	1000	0
420	Ostracoda	0	0	0
441	Bosmina sp.	0	0	0
602	Tintinnopsis sp. A	190	0	0
603	Tintinnopsis sp. B	0	3000	0
821	Rivalvia veliger	0	0	0
855	spionid larva	0	0	1333
880	scaleworm larva	0	0	2000

mg Carbon per cubic meter

7 16 42

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Page 104

DATE JULIAN DATE LOCATION
170780 80199 North S.F.BayVESSEL
EsteroMESH SIZE
64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
905	318	1.0	20.4	17.6	12.8	10.7	1	-1	ship
940	324	1.0	20.4	16.5	7.2	5.3	1	-1	ship
1315	414	1.0	22.7	2.2	57.0	12.8	4	-1	ship

	Station	318	324	414
	Depth	1.0	1.0	1.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	583	1714	0
6	Acartia clausi M	0	762	0
7	Acartia clausi C	7000	4000	0
8	Acartia clausi N	5250	17333	0
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	500
143	Sinocalanus dorii F	0	0	667
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	833
199	corepod nauplius	0	0	167
200	Cyclopoids	0	0	0
250	Harpacticoids	0	0	167
251	Harpacticoid B (bronze)	0	0	0
325	Synidotea laticauda imm.	0	0	0
333	Neomysis mercedis juv.	0	0	0
401	barnacle nauplius	583	381	0
420	Ostracoda	0	0	0
441	Bosmina sp.	0	0	0
602	Tintinnopsis sp. A	8750	3048	0
603	Tintinnopsis sp. B	12833	0	0
821	Bivalvia veliger	1750	762	0
855	spionid larva	0	381	0
880	scaleworm larva	4667	1143	0

ug Carbon per cubic meter

20 15 9

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DATE JULIAN DATE LOCATION
170780 80199 North S.F. Bay

VESSEL MESH SIZE
Estero 64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETITUS	TIDE	COUNT type
1335	416	1.0	21.1	2.7	50.3	19.8	1	-1	ship
1445	432	1.0	22.2	0.9	17.2	13.8	1	-1	ship
1730	757	4.0	22.8	0.2	2.6	2.6	2	-1	ship

	Station	416	432	757
	Depth	1.0	1.0	4.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	0	0	0
6	Acartia clausi M	0	0	0
7	Acartia clausi C	0	0	0
8	Acartia clausi N	0	0	0
100	Eurytemora affinis F	375	250	0
101	Eurytemora affinis M	250	83	0
102	Eurytemora affinis C	250	0	47
143	Sinocalanus dorii F	625	1583	93
144	Sinocalanus dorii M	0	167	0
145	Sinocalanus dorii C	500	667	140
199	copepod nauplius	125	0	0
200	Cyclopoida	0	83	0
250	Harpacticoida	0	0	0
251	Harpacticoid B (bronze)	125	0	0
325	Synidotea laticauda imm.	0	0	0
333	Neomysis mercedis juv.	250	0	0
401	barnacle nauplius	125	0	0
420	Ostracoda	0	83	0
441	Bosmina sp.	0	0	47
602	Tintinnopsis sp. A	0	0	0
603	Tintinnopsis sp. B	0	0	0
821	Bivalvia veliger	0	0	0
855	spionid larva	0	83	0
880	scaleworm larva	0	0	0

	# 9	Carbon per cubic meter	17	1
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DATE 50880	JULIAN DATE 80218	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64						
TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /%	DETritus	TIDE	COUNT type	
1823	17	12.0	16.1	30.1	2.4	0.9	2	-1	ship	
1829	17	6.0	16.6	29.9	2.4	0.8	1	-1	ship	
1835	17	1.0	16.8	29.2	2.4	0.8	1	-1	ship	
1626	15	15.0	17.4	27.9	0.9	1.7	1	-1	ship	
1632	15	10.0	18.3	25.7	1.3	1.4	0	-1	ship	
1638	15	1.0	19.1	24.3	2.2	2.0	1	-1	ship	
1522	13	10.0	18.8	24.5	1.5	2.6	2	-1	ship	
1528	13	5.0	19.4	23.1	2.5	1.6	0	-1	ship	
1534	13	1.0	19.4	22.9	3.0	1.3	0	-1	ship	

Code	Name	Station	17	15	13						
		Depth	12.0	6.0	1.0	15.0	10.0	1.0	10.0	5.0	
10	Acartia californiensis F		267	267	0	150	800	700	2100	133	0
11	Acartia californiensis M		0	400	0	0	133	817	900	133	0
12	Acartia californiensis C		2267	1067	2450	2100	2933	8983	10950	3067	8833
13	Acartia californiensis N		1333	1333	233	450	1067	2450	900	6800	6333
61	Paracalanus parvus M		267	0	0	0	0	0	0	0	0
62	Paracalanus parvus C		0	133	117	0	0	117	0	0	0
100	Eurytemora affinis F		0	0	0	0	0	0	0	0	0
101	Eurytemora affinis M		0	0	0	0	0	0	0	0	0
102	Eurytemora affinis C		0	0	0	0	0	117	0	0	0
143	Sinocalanus dorii F		0	0	0	0	0	0	0	0	0
144	Sinocalanus dorii M		0	0	0	0	0	0	0	0	0
145	Sinocalanus dorii C		0	0	0	0	0	0	0	0	0
192	Exilabidocera longispedata C		0	133	0	0	133	0	0	0	0
195	copepod nauplius D		0	133	0	0	0	0	0	0	0
197	copepod nauplius B		0	0	0	0	0	0	0	0	0
199	copepod nauplius		0	133	117	0	0	0	0	0	0
200	Cyclopoida		133	0	0	0	0	0	0	0	0
210	Dithona spp.		0	133	0	0	0	0	0	0	0
250	Harpacticoids		267	0	233	300	133	117	0	0	0
251	Harpacticoid B (bronze)		0	0	0	0	0	0	0	0	0
321	Isopoda imm.		0	0	0	0	133	0	0	0	0
350	Xanthid zoea		0	133	0	0	0	0	0	0	0
370	Natantia zoea		0	0	117	0	0	0	0	0	0
401	barnacle nauplius		1333	1200	467	0	400	1867	2100	3867	7500
402	barnacle cypris		0	0	0	0	0	0	0	0	0
441	Rosmina sp.		0	0	0	0	0	0	0	0	0
551	Engraulis mordax egg		0	0	0	300	0	0	150	0	0
602	Tintinnopsis sp. A		0	0	0	1350	667	1517	1800	0	167
603	Tintinnopsis sp. B		0	267	0	2700	4933	2217	150	0	0
605	Eutintinnus neriticus		0	0	0	0	933	350	0	0	0
608	Parafavella sp.		533	1467	1050	0	0	0	0	0	0
681	flatworm sp. A		133	133	117	0	0	117	0	0	0
701	Synchaeta sp.		109333	12133	5483	0	0	0	0	0	267
740	Nematoda		0	0	0	0	0	0	0	0	0
750	Ectoproct (Bryozoa)		0	0	0	0	133	0	0	0	0
801	Gastropod veliger		133	0	117	0	0	0	0	0	0
821	Bivalvia veliger		0	133	117	0	533	467	0	0	0

Code	Name	Station	12.0	17	1.0	15.0	15	10.0	1.0	10.0	13	5.0	1.0
		Depth											
855	spionid larva		267	267	583	0	0	0	0	0	0	0	0
880	scaleworm larva		267	133	0	0	133	233	0	0	0	0	0
899	pelagic polychaete		0	0	0	0	133	0	0	0	0	0	0
						mg Carbon per cubic meter							
						3	8	15		20	10	19	

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DATE 50880	JULIAN DATE 80218	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64					
TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1247	9	15.0	20.1	17.9	3.4	3.8	1	-1	ship
1253	9	5.0	20.2	17.1	3.0	1.8	0	-1	ship
1259	9	1.0	20.5	15.2	4.8	1.5	0	-1	ship
1120	6	10.0	21.1	7.3	22.4	11.3	5	0	ship
1126	6	5.0	21.2	7.1	24.7	11.3	4	0	ship
1132	6	1.0	21.3	6.0	22.5	6.7	3	0	ship
935	3	11.0	22.4	0.6	5.8	5.8	2	1	ship
941	3	5.0	22.4	0.5	5.1	4.8	3	1	ship
947	3	1.0	22.4	0.4	5.0	4.4	1	1	ship

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	Station Depth	15.0	5.0	1.0	10.0	5.0	1.0	11.0	5.0	3	1.0
Code	Name	Number per cubic meter									
855	spionid larva	0	333	0	3500	6500	3000	0	0	0	0
880	scaleworm larva	0	0	0	0	0	0	0	0	0	0
899	pelagic polychaete	0	0	0	0	0	0	0	0	0	0
		mg Carbon per cubic meter									
		30	35	7	15	23	22	19	46	24	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
50880	80218	North S.F. Bay	Polaris	64					
TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
803	657	1.5	22.2	0.0	5.8	1.7	1	1	ship

Station
Depth

657
1.5

Code	Name	Number per cubic meter
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
13	Acartia californiensis N	0
61	Paracalanus parvus M	0
62	Paracalanus parvus C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorrii F	583
144	Sinocalanus dorrii M	167
145	Sinocalanus dorrii C	0
192	Epilabidocera longipedata C	0
195	copepod nauplius D	0
197	copepod nauplius B	0
199	copepod nauplius	83
200	Cyclopoida	0
210	Oithona spp.	0
250	Harpacticoida	250
251	Harpacticoid B (bronze)	0
321	Isopoda imm.	0
350	Xanthid zoea	0
370	Natantia zoea	0
401	barnacle nauplius	0
402	barnacle cypris	0
441	Bosmina sp.	750
551	Engraulis mordax egg	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
608	Parafavella sp.	0
681	flatworm sp. A	0
701	Synchaeta sp.	0
740	Nematoda	0
750	Ectoprocta (Bryozoa)	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
855	spionid larva	0
880	scaleworm larva	0
899	pelagic polychaete	0

mg Carbon per cubic meter

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DATE 50880	JULIAN DATE 80218	LOCATION North S.F. Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETritus	TIDE	COUNT type
1540	324	0.5	20.0	20.8	6.8	15.8	5	1	ship
1220	414	1.0	21.0	5.6	53.8	12.4	1	1	ship
1150	418	1.0	19.8	3.9	51.6	20.0	1	1	ship

Station	324	414	418
Depth	0.5	1.0	1.0

Code	Name	Number per cubic meter		
10	Acartia californiensis F	1750	333	0
11	Acartia californiensis M	1000	0	0
12	Acartia californiensis C	2250	667	0
13	Acartia californiensis N	1000	333	0
100	Eurytemora affinis F	0	1333	400
101	Eurytemora affinis M	0	1000	800
102	Eurytemora affinis C	0	667	2600
143	Sinocalanus dori F	0	0	400
144	Sinocalanus dori M	0	0	0
145	Sinocalanus dori C	0	0	0
197	copepod nauplius B	0	0	600
199	copepod nauplius	0	0	400
251	Harpacticoid B (bronze)	0	0	0
401	barnacle nauplius	6250	3667	0
441	Bosmina sp.	0	0	0
445	Daphnia pulex	0	0	0
602	Tintinnopsis sp. A	2000	0	0
603	Tintinnopsis sp. B	500	0	0
821	Bivalvia veliger	250	0	0
855	spionid larva	0	2667	200
880	scaleworm larva	250	0	0

	mg Carbon per cubic meter	
19	21	10

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DATE 50880	JULIAN DATE 80218	LOCATION North S.F. Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETITUTUS	TIDE	COUNT type
1050	432	1.0	20.6	2.6	16.5	12.6	4	1	ship
820	757	5.0	23.2	0.2	2.1	2.7	4	1	ship

Station	432	757
Depth	1.0	5.0

Code	Name	Number per cubic meter
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
13	Acartia californiensis N	0
100	Eurytemora affinis F	600
101	Eurytemora affinis M	750
102	Eurytemora affinis C	150
143	Sinocalanus dorrii F	150
144	Sinocalanus dorrii M	0
145	Sinocalanus dorrii C	0
197	copepod nauplius B	0
199	copepod nauplius	0
251	Harpacticoid B (bronze)	150
401	barnacle nauplius	0
441	Bosmina sp.	0
445	Daphnia pulex	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
821	Bivalvia veliger	0
855	spionid larva	0
880	scaleworm larva	0

mg Carbon per cubic meter

5 6

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ZOOPLANKTON

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DATE 190880	JULIAN DATE 80232	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64	TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETITUS	TIDE	COUNT type
935	17	14.0	15.0	31.3	1.5	1.3	2	1						ship
641	17	6.0	15.2	31.2	1.5	1.3	1	1						ship
647	17	1.0	15.3	30.8	1.5	1.0	1	1						ship
815	15	20.0	16.5	28.5	2.3	2.0	2	0						ship
822	15	10.0	16.8	28.0	2.1	1.8	1	0						ship
829	15	1.0	17.1	26.4	2.2	1.8	0	0						ship
912	13	10.0	17.2	26.7	2.0	2.2	0	-1						ship
924	13	5.0	18.0	22.8	2.9	1.7	0	-1						ship
924	13	1.0	18.0	22.8	2.9	1.7	0	-1						ship
		Station Depth	14.0	17										
			6.0	6.0	1.0									
						20.0	10.0	1.0						
									10.0					
										13				
										5.0				
											1.0			
Code	Name													Number per cubic meter
5	Acartia clausi F	2800	1467	200		0	0	0		0	0	0	0	0
6	Acartia clausi M	0	183	0		0	0	0		0	0	0	0	0
7	Acartia clausi C	2400	3300	1200		0	0	0		0	0	0	0	0
8	Acartia clausi N	0	550	0		0	0	0		0	0	0	0	0
10	Acartia californiensis F	0	0	0		115	1558	192		3000	692	0	0	0
11	Acartia californiensis M	0	0	0		0	692	192		2077	346	0	0	0
12	Acartia californiensis C	0	0	0		2538	6231	3269		10154	6404	1615	0	0
13	Acartia californiensis N	0	0	0		231	865	1346		3462	9173	1846	0	0
60	Paracalanus parvus F	200	367	0		0	0	0		0	0	0	0	0
61	Paracalanus parvus M	400	367	0		0	0	0		0	0	0	0	0
62	Paracalanus parvus C	200	183	0		0	173	0		0	0	0	0	0
100	Eurytemora affinis F	0	0	0		0	0	0		0	0	0	0	0
101	Eurytemora affinis M	0	0	0		0	0	0		0	0	0	0	0
102	Eurytemora affinis C	0	0	0		0	0	0		0	0	0	0	0
143	Sinocalanus dorsi F	0	0	0		0	0	0		0	0	0	0	0
145	Sinocalanus dorsi C	0	0	0		0	0	0		0	0	0	0	0
196	copepod nauplius A	0	0	0		0	0	0		0	0	173	0	0
197	copepod nauplius B	0	0	0		0	0	0		385	0	0	0	0
198	copepod nauplius C	0	0	0		0	0	0		192	0	173	0	0
199	copepod nauplius	0	183	400		0	173	385		0	0	0	0	0
200	Cyclopoida	0	0	200		0	0	0		0	0	0	0	0
210	Oithona spp.	0	0	0		0	0	0		0	0	0	0	0
250	Harpacticoida	600	367	400		115	0	962		0	173	0	0	0
270	Microsetella sp.	0	0	0		115	0	0		0	0	0	0	0
280	Harpacticoid sp.A	200	0	0		0	173	0		462	0	0	0	0
281	Harpacticoid A N	0	0	0		0	0	0		231	0	0	0	0
305	Ampelisca milleri	0	0	0		231	0	0		0	173	0	0	0
333	Neomysis mercedis juv.	0	0	0		0	0	0		0	0	0	0	0
355	Cancer zoea	0	0	200		0	0	0		0	0	0	0	0
370	Natantia zoea	0	0	0		0	0	0		0	0	0	0	0
376	Crangon sp.	0	0	0		0	0	0		0	0	0	0	0
401	barnacle nauplius	400	733	200		0	865	1346		0	519	2538	0	0
402	barnacle cypris	0	0	0		0	0	0		0	346	0	0	0
441	Bosmina sp.	0	0	0		0	0	0		0	0	0	0	0
545	Ascidian larva	0	0	0		115	0	192		0	0	0	0	0
601	tintinnid spp.	0	0	0		0	0	0		0	173	0	0	0
602	Tintinnopsis sp. A	0	0	0		0	692	577		1385	692	231	0	0

Code	Name	Station Depth	14.0	17	1.0	20.0	15	1.0	10.0	13	5.0	1.0
603	Tintinnopsis sp. B	0	0	0	0	173	577	462	0	0	0	0
605	Eutintinnus neriticus	0	183	0	231	692	2885	231	346	692	0	0
608	Parafavella sp.	0	183	0	0	0	0	0	0	0	0	0
681	flatworm sp. A	0	0	600	0	519	0	0	173	0	0	0
701	Synchaeta sp.	0	367	0	0	173	192	0	0	0	0	0
748	Phoronida larva	0	0	0	115	0	0	0	0	0	0	0
801	Gastropod veliger	0	183	0	0	173	0	0	0	0	0	0
821	Bivalvia veliger	0	0	0	115	519	769	462	2250	462	0	0
855	spionid larva	0	367	0	115	173	192	0	346	0	0	0
880	scaleworm larva	0	0	0	0	0	385	231	2077	0	0	0
mg Carbon per cubic meter												
		13	11	4	3	14	9	22	17	5		

Code	Name	Station Depth	22.0	10.0	9	1.0	9.0	5.0	6	1.0	10.0	5.0	3	1.0
603	Tintinnopsis sp. B		231	0	0	0	0	0	0	0	0	0	0	0
605	Eutintinnus neriticus		692	577	0	0	0	0	0	0	0	0	0	0
608	Parafavella sp.		0	0	0	0	0	0	0	0	0	0	0	0
681	flatworm sp. A		0	0	0	0	0	0	0	0	0	0	0	0
701	Synchaeta sp.		0	0	0	0	0	0	3571	0	0	0	0	0
748	Phoronida larva		0	0	0	0	0	0	0	0	0	0	0	0
801	Gastropod veliger		0	192	0	0	0	0	0	0	0	0	0	0
821	Bivalvia veliger		0	0	0	0	0	0	0	0	0	0	0	0
855	spionid larva		0	0	0	8571	6000	8929	0	0	0	0	0	133
880	scaleworm larva		0	385	385	357	0	0	0	0	0	0	0	0
ms Carbon per cubic meter														
			9	33	11		51	36	48		14	5	6	

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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETritus	TIDE	COUNT type
1606	657	3.0	21.3	0.0	3.3	1.6	1	0	ship

Station
Depth

657
3.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
13	Acartia californiensis N	0
60	Paracalanus parvus F	0
61	Paracalanus parvus M	0
62	Paracalanus parvus C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
145	Sinocalanus dorii C	0
196	copepod nauplius A	0
197	copepod nauplius B	0
198	copepod nauplius C	0
199	copepod nauplius	0
200	Cyclopoida	133
210	Oithona spp.	0
250	Harpacticoida	133
270	Microsetella sp.	0
280	Harpacticoid sp. A	0
281	Harpacticoid A N	0
305	Ampelisca milleri	0
333	Neomysis mercedis juv.	0
355	Cancer zoea	0
370	Natantia zoea	0
376	Cranson sp.	0
401	barnacle nauplius	0
402	barnacle cypris	0
441	Bosmina sp.	1333
545	Ascidian larva	0
601	tintinnid spp.	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
608	Parafavella sp.	0
681	flatworm sp. A	0
701	Synchaeta sp.	0
748	Phoronida larva	0
801	Gastropod veliger	0
821	Bivalvia veliger	0

Code	Name	Station Depth	Number per cubic meter
855	spionid larva	657	0
880	scaleworm larva	3.0	0
			mg Carbon per cubic meter
			3

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DATE 190880	JULIAN DATE 80232	LOCATION North S.F.Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETITIUS	TIDE	COUNT type
720	302	2.0	17.7	23.5	4.1	1.7	0	1	ship
750	306	3.0	17.6	23.3	4.1	1.8	0	1	ship
820	312	1.0	18.4	21.6	8.1	4.6	0	0	ship

	Station Depth	302 2.0	306 3.0	312 1.0
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Code	Name	Number per cubic meter		
10	Acartia californiensis F	0	0	5333
11	Acartia californiensis M	0	0	5000
12	Acartia californiensis C	5400	5600	12667
13	Acartia californiensis N	2200	8800	1667
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	0
192	Epilabidocera longispedata C	0	0	0
197	copepod nauplius B	0	0	0
198	copepod nauplius C	200	0	0
199	copepod nauplius	0	0	0
200	Cyclopoida	0	0	0
210	Oithona spp.	0	0	0
250	Harpacticoida	0	0	0
270	Microsetella sp.	0	0	0
280	Harpacticoid sp.A	0	0	333
401	barnacle nauplius	4800	7000	1667
402	barnacle cypris	0	0	0
420	Ostracoda	0	0	0
441	Bosmina sp.	0	0	0
445	Daphnia pulex	0	0	0
551	Engraulis mordax egg	200	0	0
602	Tintinnopsis sp. A	600	1000	333
603	Tintinnopsis sp. B	0	0	0
605	Eutintinnus neriticus	600	3800	0
681	flatworm sp. A	200	600	0
751	Ectoprocta larva	0	0	333
821	Bivalvia veliger	0	1400	1000
851	polychaete trochophore	200	200	0
855	spionid larva	0	0	0
880	scaleworm larva	0	200	0

	m ³ Carbon per cubic meter	
13	18	37

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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETITIUS	TIDE	COUNT type
850	318	1.5	18.2	22.0	4.8	2.8	0	-1	ship
925	324	1.0	18.2	21.4	5.9	2.9	0	-1	ship
1015	334	1.0	18.7	20.9	3.5	1.3	1	-1	ship

Station	318	324	334
Depth	1.5	1.0	1.0

Code	Name	Number per cubic meter		
10	Acartia californiensis F	500	667	0
11	Acartia californiensis M	500	833	0
12	Acartia californiensis C	15000	16333	2017
13	Acartia californiensis N	8000	3333	5500
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorrii F	0	0	0
144	Sinocalanus dorrii M	0	0	0
145	Sinocalanus dorrii C	0	0	0
192	Epilabidocera longirostrata C	0	167	0
197	copepod nauplius B	0	0	0
198	copepod nauplius C	0	0	0
199	copepod nauplius	0	0	0
200	Cyclopoida	0	0	0
210	Oithona spp.	0	0	0
250	Harpacticoida	0	0	0
270	Microsetella sp.	0	167	0
280	Harpacticoid sp.A	0	167	0
401	barnacle nauplius	5667	5333	550
402	barnacle cypris	0	0	0
420	Ostracoda	0	2000	183
441	Bosmina spp.	0	0	0
445	Daphnia pulex	0	0	0
551	Engraulis mordax egg	0	0	0
602	Tintinnopsis sp. A	333	3167	0
603	Tintinnopsis sp. B	333	667	183
605	Eutintinnus neriticus	0	1500	183
681	flatworm sp. A	0	667	0
751	Ectoprocta larva	0	0	0
821	Bivalvia veliger	167	1000	0
851	polychaete trochophore	0	0	0
855	spionid larva	0	167	183
880	scaleworm larva	0	0	0

as Carbon per cubic meter

24 31 4

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DATE 190880	JULIAN DATE 80232	LOCATION North S.F.Bay	VESSEL Estero	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETritus	TIDE	COUNT type
1230	414	1.0	19.8	6.9	40.3	5.0	1	-1	ship
1300	418	1.0	19.6	7.2	35.8	4.8	0	-1	ship
1400	432	1.0	20.0	4.4	29.6	6.2	1	-1	ship

Station	414	418	432
Depth	1.0	1.0	1.0

Code	Name	Number per cubic meter		
10	Acartia californiensis F	250	0	0
11	Acartia californiensis M	0	0	0
12	Acartia californiensis C	0	0	0
13	Acartia californiensis N	0	0	0
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	2000	3500	2200
143	Sinocalanus dorrii F	0	0	0
144	Sinocalanus dorrii M	0	0	0
145	Sinocalanus dorrii C	0	250	200
192	Epilabidocera longipedata C	0	0	0
197	copepod nauplius B	0	250	0
198	copepod nauplius C	0	0	0
199	copepod nauplius	0	7500	4800
200	Cyclopoida	1250	0	0
210	Dithona spp.	0	250	0
250	Harpacticoida	250	500	600
270	Microsetella sp.	0	0	0
280	Harpacticoid sp.A	0	0	0
401	barnacle nauplius	19500	12000	1600
402	barnacle cypris	0	0	600
420	Ostracoda	0	0	0
441	Bosmina sp.	0	0	0
445	Daphnia pulex	0	0	0
551	Engraulis mordax egg	0	0	0
602	Tintinnopsis sp. A	0	0	0
603	Tintinnopsis sp. B	0	0	0
605	Eutintinnus neriticus	0	0	0
681	flatworm sp. A	0	0	0
751	Ectoprocta larva	0	0	0
821	Bivalvia veliger	0	0	0
851	polychaete trochophore	0	0	0
855	spionid larva	3250	1750	400
880	scaleworm larva	0	0	0

ug Carbon per cubic meter

44 28 9

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
190880	80232	North S.F. Bay	Esterro	64					
TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
1700	757	5.0	21.9	0.2	2.6	2.7	3	-1	ship

Station
Depth

757
5.0

Code	Name	Number per cubic meter
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
13	Acartia californiensis N	0
100	Eurytemora affinis F	100
101	Eurytemora affinis M	100
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	4000
144	Sinocalanus dorii M	500
145	Sinocalanus dorii C	1500
192	Eriabidocera longipinedata C	0
197	copepod nauplius B	0
198	copepod nauplius C	0
199	copepod nauplius	0
200	Cyclopoida	0
210	Oithona spp.	0
250	Harpacticoids	0
270	Microsetella sp.	0
280	Harpacticoid sp.A	0
401	barnacle nauplius	0
402	barnacle cypris	0
420	Ostracoda	0
441	Bosmina sp.	300
445	Daphnia pulex	100
551	Engraulis mordax egg	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
681	flatworm sp. A	0
751	Ectoprocta larva	0
821	Bivalvia veliger	100
851	polychaete trochophore	0
855	spionid larva	0
880	scaleworm larva	0

mg Carbon per cubic meter

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DATE 40980	JULIAN DATE 80248	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64	TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o/o	CHL a ug/l	EXCOF /m	DETITUS	TIDE	COUNT type
634	17	28.0	16.1	30.4	2.3	1.0	4	1						ship
640	17	14.0	16.2	30.2	2.1	1.0	3	1						ship
646	17	1.0	17.0	28.2	2.8	1.0	1	1						ship
750	15	20.0	17.4	27.1	2.1	2.5	2	1						ship
756	15	10.0	17.5	26.5	2.2	2.4	1	1						ship
802	15	1.0	17.9	24.5	5.6	2.1	0	1						ship
851	13	10.0	17.7	25.5	0.2	4.8	5	1						ship
859	13	5.0	17.9	25.0	0.2	3.8	3	1						ship
907	13	1.0	17.9	23.5	3.3	1.8	1	1						ship
		Station Depth	28.0	14.0	1.0	20.0	15	10.0	1.0	10.0	1.0	10.0	1.0	
Code	Name													Number per cubic meter
5	Acartia clausi F		409	682	435		0	0	0		0	0	0	0
7	Acartia clausi C		2182	1500	6364		0	0	0		0	0	0	0
8	Acartia clausi N		273	682	2727		0	0	0		0	0	0	0
10	Acartia californiensis F		0	0	0	1636	2727	0		2600	4200	1050		
11	Acartia californiensis M		0	0	0	818	1364	200		800	2000	817		
12	Acartia californiensis C		0	0	0	10909	15545	4200		2400	8200	8750		
13	Acartia californiensis N		0	0	0	3545	16091	800		200	400	233		
62	Paracalanus parvus C	136	0	0	273		0	0		0	0	0	0	0
100	Eurytemora affinis F		0	0	0	0	0	0		0	0	0	0	0
101	Eurytemora affinis M		0	0	0	0	0	0		0	0	0	0	0
102	Eurytemora affinis C		0	0	0	0	0	0		0	0	0	0	0
143	Sinocalanus dorri F		0	0	0	0	0	0		0	0	0	0	0
145	Sinocalanus dorri C		0	0	0	0	0	0		0	0	0	0	0
160	Pseudodiaptomus euryhalinus F		0	0	0	0	0	0		0	0	0	0	0
194	copepodite (unknown)		0	0	0	0	0	0		0	0	0	0	0
196	copepod nauplius A		0	0	0	0	0	273		0	0	0	0	0
197	copepod nauplius B		0	0	0	0	0	0		0	0	0	0	0
198	copepod nauplius C		0	0	0	0	0	0		0	0	0	0	0
199	copepod nauplius		0	0	0	0	0	0		0	0	0	0	0
200	Cyclopoida		0	0	455	0	0	0		0	0	0	0	0
250	Harpacticoida		409	227		0	0	0		200	0	117		
251	Harpacticoid B (bronze)		0	0	0	0	0	0		0	0	0	0	
321	Isopoda imm.		0	0	0	0	0	0		0	0	0	0	
333	Neomysis mercedis Juv.		0	0	0	0	0	0		0	0	0	0	
345	Grapsid zoea		0	0	0	0	0	0		0	0	0	0	
350	Xanthid zoea		0	136	0	0	0	0		0	0	0	0	
376	Crangon sp.		0	1	0	0	0	0		0	0	0	0	
401	barnacle nauplius	136	545	2045	1364	1091	1000		200	1000	6417			
402	barnacle cypris	0	0	0	0	0	0		0	0	0	0	0	
420	Ostracoda	0	136	0	0	0	0		0	0	0	0	0	
440	Cladocera	0	0	0	0	0	0		0	0	0	0	0	
441	Bosmina sp.	0	0	0	0	0	0		0	0	0	0	0	
551	Engraulis mordax egg	0	0	0	0	0	273		0	0	0	0	117	
602	Tintinnopsis sp. A	0	0	0	0	1909	1636	200		600	1200	583		
603	Tintinnopsis sp. B	0	0	227	818	1091	0		200	0	0	0	0	
605	Eutintinnus neriticus	0	0	0	0	0	0		0	200	400	583		
608	Parafavella sp.	0	136	0	0	0	0		0	0	0	0	0	

Code	Name	Station Depth	28.0	17	1.0	20.0	15	1.0	10.0	13	5.0	1.0
630	coiled Foraminifera	0	136	0	0	0	0	0	0	0	0	0
681	flatworm sp. A	0	273	1364	0	0	0	0	0	400	583	
701	Synchaeta sp.	0	136	682	545	0	0	0	0	0	0	0
703	Brachionus sp.	0	0	0	0	0	0	0	0	0	0	0
740	Nematoda	0	0	0	0	0	0	0	0	0	0	0
751	Ectoprocta larva	0	0	0	0	273	0	0	0	0	0	117
801	Gastropod veliger	0	0	0	273	0	0	0	0	0	0	0
821	Bivalvia veliger	0	0	0	273	818	200	200	600	600	117	
851	Polychaete trochophore	0	136	0	0	0	0	0	0	0	0	0
855	spionid larva	0	0	0	545	0	0	0	0	200	0	0
880	scaleworm larva	0	0	0	0	0	0	0	0	0	0	0
mg Carbon per cubic meter												
			3	5	13	19	26	5	11	25	22	

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DATE 40980	JULIAN DATE 80248	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64						
TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type	
1020	9	18.0	18.5	18.0	3.8	3.4	3	1	ship	
1028	9	9.0	18.5	17.8	4.2	3.6	3	1	ship	
1036	9	1.0	18.5	15.9	5.2	2.7	1	1	ship	
1156	6	9.0	19.1	8.9	22.5	5.8	5	1	ship	
1202	6	5.0	19.1	8.6	22.4	4.8	3	1	ship	
1208	6	1.0	19.2	8.4	28.1	4.8	4	1	ship	
1313	3	11.0	19.9	2.6	14.7	8.1	5	1	ship	
1319	3	5.0	19.9	2.6	14.0	7.0	5	1	ship	
1325	3	1.0	19.9	2.6	13.5	5.8	5	1	ship	

	Station Depth	18.0	9.0	1.0	9.0	5.0	1.0	11.0	3 5.0	1.0
Code	Name	Number per cubic meter								
630	coiled Foraminifera	0	0	0	0	0	0	0	0	0
681	flatworm sp. A	333	0	0	0	0	0	0	0	0
701	Synchaeta sp.	0	0	0	1800	0	0	0	0	100
703	Brachionus sp.	0	0	0	0	0	0	0	0	0
740	Nematoda	0	0	0	200	0	0	0	0	100
751	Ectoprocta larva	167	0	0	0	0	0	0	0	0
801	Gastropod veliger	0	0	0	0	0	0	0	0	0
821	Bivalvia veliger	0	500	1667	0	200	333	0	0	0
851	polychaete trochophore	0	0	167	0	0	0	0	0	0
855	spionid larva	0	333	167	3600	400	833	0	200	200
880	scaleworm larva	0	0	167	0	0	0	0	0	0
		mg Carbon per cubic meter								
		22	27	17	16	21	12	4	5	5

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DATE 40980	JULIAN DATE 80248	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64
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TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1515	657	2.0	21.8	0.1	8.3	2.5	3	0	ship

Station
Depth

657
2.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
7	Acartia clausi C	0
8	Acartia clausi N	0
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
13	Acartia californiensis N	0
62	Paracalanus parvus C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
145	Sinocalanus dorii C	0
160	Pseudodiaptomus eurhalinus F	44
194	copepodite (unknown)	44
196	copepod nauplius A	0
197	copepod nauplius B	0
198	copepod nauplius C	0
199	copepod nauplius	44
200	Cyclopoida	222
250	Harpacticoids	44
251	Harpacticoid B (bronze)	0
321	Isopoda imm.	0
333	Neomysis mercedis juv.	0
345	Grapsid zoea	0
350	Xanthid zoea	0
376	Crassion sp.	0
401	barnacle nauplius	0
402	barnacle cypris	0
420	Ostracoda	0
440	Cladocera	0
441	Bosmina sp.	222
551	Engraulis mordax egg	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
608	Parafavella sp.	0
630	coiled Foraminifera	0
681	flatworm sp. A	0
701	Synchaeta sp.	0
703	Brachionus sp.	89
740	Nematoda	0
751	Ectoprocta larva	0
801	Gastropod veliger	0
821	Bivalvia veliger	0

	Station Depth	Number per cubic meter
Code	Name	
851	polychaete trochophore	0
855	spionid larva	0
880	scaleworm larva	0
		mg Carbon per cubic meter
		1

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
40980	80248	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETITUS	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
700	302	2.0	18.1	24.9	3.6	5.2	5	1	ship
730	306	2.0	18.1	23.7	6.3	5.4	5	1	ship
800	312	1.0	18.6	22.7	16.0	10.4	3	1	ship

Station	302	306	312
Depth	2.0	2.0	1.0

Code	Name	Number per cubic meter
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10	Acartia californiensis F	0	1333	5250
11	Acartia californiensis M	0	4333	7583
12	Acartia californiensis C	4000	17000	12250
13	Acartia californiensis N	667	8667	7583
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	0
194	copepodite (unknown)	0	0	0
197	copepod nauplius B	0	0	0
199	copepod nauplius	0	0	0
200	Cyclopoida	0	0	0
250	Harpacticoida	0	0	0
251	Harpacticoid B (bronze)	0	0	0
401	barnacle nauplius	667	333	4083
420	Ostracoda	0	0	0
441	Bosmina sp.	0	0	0
602	Tintinnopsis sp. A	1333	2333	26833
603	Tintinnopsis sp. B	6000	5000	102667
605	Eutintinnus meriticus	0	0	0
681	flatworm sp. A	0	667	583
682	flatworm sp. B	0	0	0
701	Synchaeta sp.	0	0	0
703	Brachionus sp.	0	0	0
801	Gastropod veliger	0	0	0
821	Rivalvia veliger	667	0	583
851	Polychaete trochophore	0	0	1167
852	Polychaete larva	0	0	0
855	spionid larva	0	333	1750
880	scaleworm larva	0	0	1167

mg Carbon per cubic meter

5	28	55
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
40980	80248	North S.F. Bay	Estero	64					
TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETITUS	TIDE	COUNT
		m	°C	‰/‰	µg/l	/m			type
830	318	1.5	18.1	22.6	8.0	6.6	3	1	ship
900	324	1.5	17.7	23.6	9.1	3.7	3	1	ship
945	334	1.5	17.7	25.3	8.9	5.9	3	1	ship

	Station	318	324	334
	Depth	1.5	1.5	1.5
Code	Name	Number per cubic meter		
10	Acartia californiensis F	0	3667	3333
11	Acartia californiensis M	2000	5000	3333
12	Acartia californiensis C	9333	7000	14667
13	Acartia californiensis N	2667	1333	5333
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	0
194	copepodite (unknown)	0	0	0
197	copepod nauplius B	0	0	0
199	copepod nauplius	0	0	0
200	Cyclopoida	0	0	0
250	Harpacticoids	0	0	0
251	Harpacticoid B (bronze)	0	0	0
401	barnacle nauplius	0	15667	3333
420	Ostracoda	0	5000	667
441	Bosmina sp.	0	0	0
602	Tintinnopsis sp. A	8000	1665	6000
603	Tintinnopsis sp. B	45333	333	54667
605	Eutintinnus neriticus	667	0	667
681	flatworm sp. A	667	667	667
682	flatworm sp. B	0	333	0
701	Synchaeta sp.	0	0	0
703	Brachionus sp.	0	0	0
801	Gastropod veliger	1333	0	0
821	Rivalvia veliger	667	0	667
851	Polychaete trochophore	0	0	0
852	Polychaete larva	0	0	0
855	spionid larva	667	0	0
880	scaleworm larva	0	0	0

		mg Carbon per cubic meter
	15	54

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
40980	80248	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETITUTUS	TIDE	COUNT
		m	°C	‰/o	us/l	/m			type
1150	414	1.5	19.4	7.9	61.0	10.7	3	1	ship
1220	418	2.0	20.4	5.5	33.8	6.8	1	1	ship
1310	432	1.5	21.0	3.1	25.6	6.5	1	1	ship

	Station	414	418	432
	Depth	1.5	2.0	1.5

Code	Name	Number per cubic meter
------	------	------------------------

10	Acartia californiensis F	0	0	0
11	Acartia californiensis M	0	0	0
12	Acartia californiensis C	0	0	0
13	Acartia californiensis N	0	0	0
100	Eurytemora affinis F	1111	333	0
101	Eurytemora affinis M	0	333	1200
102	Eurytemora affinis C	3889	1333	1400
143	Sinocalanus dorii F	0	0	200
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	0
194	copepodite (unknown)	0	0	0
197	copepod nauplius B	0	333	200
199	copepod nauplius	23333	4333	11600
200	Cyclopoida	0	0	200
250	Harpacticoida	0	1000	600
251	Harpacticoid B (bronze)	0	0	0
401	barnacle nauplius	13889	3333	1800
420	Ostracoda	556	0	0
441	Rosmina sp.	0	0	0
602	Tintinnopsis sp. A	556	0	0
603	Tintinnopsis sp. B	0	0	0
605	Eutintinnus neriticus	0	0	0
681	flatworm sp. A	0	0	0
682	flatworm sp. B	0	0	0
701	Synchaeta sp.	1111	0	0
703	Brachionus sp.	0	0	0
801	Gastropod veliger	0	0	0
821	Rivalvia veliger	0	333	0
851	Polychaete trochophore	0	0	0
852	Polychaete larva	0	1333	0
855	spionid larva	4444	0	0
880	scaleworm larva	0	0	0

mg Carbon per cubic meter

41	10	11
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
40980	80248	North S.F.Bay	Esterio	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1648	757	10.0	21.3	0.2	2.7	2.8	2	0	ship
1656	757	2.0	21.6	0.2	9.7	2.9	2	0	ship

Code	Name	Station Depth	757	Number per cubic meter
10	Acartia californiensis F		0	0
11	Acartia californiensis M		0	0
12	Acartia californiensis C		0	0
13	Acartia californiensis N		0	0
100	Eurytemora affinis F		0	0
101	Eurytemora affinis M		0	0
102	Eurytemora affinis C		0	0
143	Sinocalanus dorii F	428	133	
144	Sinocalanus dorii M	39	0	
145	Sinocalanus dorii C	233	200	
194	copepodite (unknown)	0	67	
197	copepod nauplius B	0	0	
199	copepod nauplius	0	0	
200	Cyclopoida	78	333	
250	Harracticoids	39	67	
251	Harracticoid B (bronze)	156	0	
401	barnacle nauplius	0	0	
420	Ostracoda	0	0	
441	Bosmina sp.	156	9800	
602	Tintinnopsis sp. A	0	0	
603	Tintinnopsis sp. B	0	0	
605	Eutintinnus neriticus	0	0	
681	flatworm sp. A	0	0	
682	flatworm sp. B	0	0	
701	Synchaeta sp.	0	67	
703	Brachionus sp.	1400	1333	
801	Gastropod veliger	0	0	
821	Rivalvia veliger	39	0	
851	polychaete trophophore	0	0	
852	polychaete larva	0	0	
855	srionid larva	0	0	
880	scaleworm larva	0	0	

µg Carbon per cubic meter

5 20

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
170980	80261	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
617	17	14.0	15.9	31.1	5.4	1.2	2	1	lab
623	17	7.0	15.9	31.0	5.3	1.0	2	1	ship
629	17	1.0	16.2	30.0	4.5	0.6	0	1	ship
737	15	14.0	16.8	28.7	1.9	2.0	3	1	lab
743	15	7.0	17.5	26.3	1.7	1.1	1	1	ship
749	15	1.0	17.6	25.5	2.3	0.9	1	1	ship
840	13	9.5	17.3	27.3	0.9	1.1	2	1	ship
846	13	5.0	17.3	27.3	0.9	1.1	1	1	ship
852	13	1.0	17.9	24.2	2.4	1.1	0	1	ship

Code	Name	Station Depth	14.0	17	7.0	1.0	14.0	15	7.0	1.0	9.5	13	5.0	1.0
376	Crassion sp.		0	0	0	0	0	0	0	0	0	0	0	0
401	barnacle nauplius	867	800	900	533	1600	667	533	6667	242				
402	barnacle cypris	67	0	0	0	0	133	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	0	0	0	333	267	0	1867	667	0				
603	Tintinnopsis sp. B	0	0	0	0	133	1	0	933	15151				
605	Eutintinnus neriticus	67	0	0	67	0	0	267	133	0				
609	Tintinnopsis sp. E (1/4B)	0	0	100	0	0	0	0	0	0	0	0	0	0
681	flatworm sp. A	400	0	100	200	1467	0	0	0	267	0			
682	flatworm sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0
701	Synchaeta sp.	0	1000	500	0	0	400	133	0	363				
750	Ectoprocta (Bryozoa)	133	0	0	0	0	0	0	0	0				
801	Gastropod veliger	0	0	0	67	133	0	133	0	0				
821	Bivalvia veliger	67	400	200	333	1200	133	400	3467	0				
851	polychaete trochophore	0	0	200	0	0	0	0	0	0				
855	spionid larva	133	400	0	0	0	0	133	133	242				
860	Eteone longa	0	0	0	0	0	0	0	0	0				
880	scaleworm larva	0	0	0	0	0	0	133	0	0				
899	pelagic polychaete	67	0	0	0	0	0	0	0	133	0			
mg Carbon per cubic meter														
		15	13	4	9	9	3		17	21	3			

Code	Name	Station Depth	14.0	9	1.0	7.0	6	1.0	11.0	3	5.0	1.0
401	barnacle nauplius		800	4533	1167	1000	1667	0	0	0	0	0
402	barnacle cypris		0	0	0	0	0	0	0	133	0	0
602	Tintinnopsis sp. A	14400	15467	700	1800	0	0	0	0	0	0	0
603	Tintinnopsis sp. B	29333	42667	14233	0	167	0	0	0	0	0	0
605	Eutintinnus neriticus		0	0	0	0	0	0	0	0	0	0
609	Tintinnopsis sp. E (1/4B)		0	0	0	0	0	0	0	0	0	0
681	flatworm sp. A		0	267	0	0	0	0	0	0	0	0
682	flatworm sp. B		0	0	0	0	167	0	0	0	0	0
701	Synchaeta sp.		0	0	1867	0	500	0	0	0	0	0
750	Ectoprocta (Bryozoa)		0	0	0	0	0	0	0	0	0	0
801	Gastropod veliger		0	0	0	0	0	0	0	0	0	0
821	Rivalvia veliger	8267	6667	700	200	0	150	0	0	0	0	0
851	polychaete trochophore		0	0	0	0	0	0	0	0	0	0
855	spionid larva		267	0	0	0	667	0	0	133	0	0
860	Eteone longa		0	0	0	0	167	0	0	0	0	0
880	scaleworm larva		267	0	0	0	0	0	0	0	0	0
899	pelagic polychaete		0	0	0	0	0	0	0	0	0	0
ms Carbon per cubic meter												
			28	31	8	30	6	6	9	4		

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
170980	80261	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
1544	657	2.0	20.5	0.1	2.0	1.4	1	-1	ship

Station	657
Depth	2.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
13	Acartia californiensis N	0
17	Acartia tonsa F	0
18	Acartia tonsa M	0
36	Calanus tenuicornis C	0
60	Paracalanus parvus F	0
61	Paracalanus parvus M	0
62	Paracalanus parvus C	0
72	Pseudocalanus sp.A C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
103	Eurytemora affinis N	0
143	Sinocalanus dorii F	55
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	0
194	copepodite (unknown)	55
195	copepod nauplius D	0
196	copepod nauplius A	0
197	copepod nauplius B	0
199	copepod nauplius	55
200	Cyclopoids	222
210	Oithona spp.	0
250	Harpacticoids	55
251	Harpacticoid B (bronze)	0
280	Harpacticoid sp.A	0
281	Harpacticoid A N	0
300	Amphipoda	0
333	Neomysis mercedis juv.	0
360	Pinnotherid zoea	0
370	Natantia zoea	0
376	Crangon sp.	0
401	barnacle nauplius	0
402	barnacle cypris	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
609	Tintinnopsis sp. E (1/4B)	0
681	flatworm sp. A	0

Code	Name	Station Depth	Number per cubic meter
682	flatworm sp. B	657	0
701	Synchaeta sp.	2.0	0
750	Ectoprocta (Bryozoa)		0
801	Gastropod veliger		0
821	Bivalvia veliger		0
851	Polychaete trochophore		0
855	spionid larva		0
860	Eteone lonsa		0
880	scaleworm larva		0
899	pelagic polychaete		0

ms Carbon per cubic meter
1

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
170980	80261	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	ug/l	/m			type
748	306	2.5	18.1	24.7	2.5	1.2	1	1	ship
810	312	1.0	18.5	22.2	4.6	2.3	1	1	ship
847	318	1.0	18.5	21.7	5.3	2.3	1	1	ship

Station	306	312	318
Depth	2.5	1.0	1.0

Code	Name	Number per cubic meter
------	------	------------------------

5	Acartia clausi F	0	0	444
7	Acartia clausi C	3067	25600	17333
8	Acartia clausi N	4800	43200	21333
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
145	Sinocalanus dorii C	0	0	0
194	copepodite (unknown)	0	0	0
199	copepod nauplius	0	0	0
200	Cyclopoida	0	0	0
250	Harpacticoida	133	267	0
281	Harpacticoid A N	0	0	889
360	Pinnotherid zoea	0	0	0
401	barnacle nauplius	7067	9600	14667
441	Rosina sp.	0	0	0
602	Tintinnopsis sp. A	533	267	2667
603	Tintinnopsis sp. B	267	2975600	154222
605	Eutintinnus neriticus	367	0	444
681	flatworm sp. A	133	0	0
702	Synchaeta sp. egg	0	0	444
801	Gastropod veliger	0	267	0
821	Rivalvia veliger	1333	267	0
855	spionid larva	400	267	0

as Carbon per cubic meter

15	64	41
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
170980	80261	North S.F.Bay	Esterio	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETITUS	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
920	324	1.0	18.4	21.6	29.6	3.7	1	1	ship
1209	414	1.0	19.6	4.6	34.0	3.7	1	1	ship
1231	418	1.0	19.4	3.8	23.7	6.7	1	1	ship

Station	324	414	418
Depth	1.0	1.0	1.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
7	Acartia clausi C	34667
8	Acartia clausi N	34667
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
145	Sinocalanus dorii C	0
194	copepodite (unknown)	0
199	copepod nauplius	200
200	Cyclopoida	28000
250	Harpacticoids	200
281	Harpacticoid A N	400
360	Pinnotherid zoea	0
401	barnacle nauplius	500
441	Rosmina sp.	1800
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	6667
605	Eutintinnus neriticus	36000
681	flatworm sp. A	0
702	Synchaeta sp. egg	0
801	Gastropod veliger	1333
821	Rivalvia veliger	0
855	spionid larva	200

µg Carbon per cubic meter

38	8	3
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
170980	80261	North S.F.Bay	Estero	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETITUS	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
1240	432	1.0	19.7	2.3	14.3	5.7	3	1	ship
1648	757	10.0	20.1	0.1	99.9	2.8	1	-1	ship
1654	757	2.0	20.1	0.1	32.5	2.8	1	-1	ship

Station	432	757
Depth	1.0	10.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	0	0	0
7	Acartia clausi C	0	0	0
8	Acartia clausi N	0	0	0
100	Eurytemora affinis F	0	67	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	200	0	0
143	Sinocalanus dorii F	400	333	50
145	Sinocalanus dorii C	200	67	0
194	copepodite (unknown)	0	0	0
199	copepod nauplius	2200	0	0
200	Cyclopoida	0	0	0
250	Harpacticoids	0	0	0
281	Harpacticoid A N	0	0	0
360	Pinnotherid zoea	200	0	0
401	barnacle nauplius	0	0	0
441	Rosmina sp.	0	67	100
602	Tintinnopsis sp. A	0	0	0
603	Tintinnopsis sp. B	0	0	0
605	Eutintinnus neriticus	0	0	0
681	flatworm sp. A	0	0	0
702	Synchaeta sp., egg	0	0	0
801	Gastropod veliger	0	0	0
821	Rivalvia veliger	0	0	0
855	spionid larva	0	0	0

mg Carbon per cubic meter

4 3 1

Code	Name	Station Depth	14.0	17	1.0	14.0	15	7.0	1.0	9.0	13	5.0	1.0
603	Tintinnopsis sp. B		0	0	0	0	0	0	0	0	0	0	0
630	coiled Foraminifera		0	200	0	0	0	0	0	0	0	0	0
681	flatworm sp. A		0	0	0	0	133	0	0	0	0	0	0
701	Synchaeta sp.	200	0	0	0	0	0	1307	0	0	0	0	0
801	Gastropod veliger	0	0	200	0	1733	0	0	200	0	0	0	0
821	Rivalvia veliger	200	400	0	400	0	2167	0	1400	1467	533	0	0
850	Polychaeta	0	0	0	200	0	0	0	0	0	0	0	0
851	polychaete trochophore	0	0	0	200	0	0	0	0	0	0	0	0
855	spionid larva	200	200	0	0	800	50	0	0	367	667	0	0
880	scaleworm larva	0	0	0	200	0	0	0	200	0	0	0	0
# Carbon per cubic meter													
			10	7	13		7	9	8	16	17	12	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
161080	80290	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
1014	9	14.0	17.2	19.0	2.0	2.0	2	1	ship
1020	9	7.0	17.2	15.8	2.0	1.4	1	1	ship
1026	9	1.0	17.1	12.6	5.3	1.6	1	1	ship
1151	6	6.0	17.4	8.5	14.6	4.2	2	0	ship
1157	6	1.0	17.5	6.1	21.0	3.6	1	0	ship
1312	3	12.0	17.9	1.5	10.4	6.1	4	-1	ship
1318	3	6.0	17.9	1.2	9.0	6.0	3	-1	ship
1324	3	1.0	17.8	0.9	9.7	4.6	2	-1	ship

	Station	9	6	3
	Depth	14.0	7.0	1.0
			6.0	1.0
			12.0	6.0
				1.0

Code	Name	Number per cubic meter						
5	Acartia clausi F	0	0	0	0	0	0	0
6	Acartia clausi M	0	0	0	0	0	0	0
7	Acartia clausi C	0	0	0	0	0	0	0
8	Acartia clausi N	0	0	0	0	0	0	0
10	Acartia californiensis F	2400	1600	200	0	0	0	0
11	Acartia californiensis M	3400	400	400	0	0	0	0
12	Acartia californiensis C	8400	11000	2400	0	0	0	0
13	Acartia californiensis N	1200	2800	11600	0	0	0	0
17	Acartia tonsa F	0	0	0	0	0	0	0
18	Acartia tonsa M	0	0	0	0	0	0	0
29	Tortanus discudatus C	0	0	0	0	0	0	0
60	Paracalanus parvus F	200	0	0	0	0	0	0
61	Paracalanus parvus M	0	0	0	0	0	0	0
62	Paracalanus parvus C	0	0	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	200	0	400	1167
101	Eurytemora affinis M	0	0	0	200	0	667	1500
102	Eurytemora affinis C	200	200	0	0	200	267	1833
143	Sinocalanus dorii F	0	0	0	0	0	133	0
145	Sinocalanus dorii C	0	0	0	200	0	400	500
196	copepod nauplius A	0	0	0	0	0	0	0
197	copepod nauplius B	0	0	0	200	0	0	0
198	copepod nauplius C	0	200	0	0	200	0	0
199	copepod nauplius	0	0	0	1400	600	0	133
200	Cyclopoida	0	0	0	0	200	133	167
210	Oithona spp.	800	1200	0	0	0	0	0
213	Oithona spinirostris	200	0	0	0	0	0	0
220	Corycaeus sp.	0	400	0	0	0	0	0
250	Harpacticoids	200	0	0	0	400	0	167
270	Microsetella sp.	0	0	0	0	0	0	0
280	Harpacticoid sp. A	0	200	0	0	0	0	0
281	Harpacticoid A N	0	0	0	0	0	0	0
331	Mysid Juvenile	0	0	0	6	0	0	0
333	Neomysis mercedis juv.	0	0	0	0	0	800	500
401	barnacle nauplius	1400	6400	600	1200	13400	0	0
402	barnacle cypris	0	200	0	0	200	0	0
551	Engraulis mordax egg	200	0	0	0	0	0	0
602	Tintinnopsis sp. A	12000	8600	600	4600	3800	0	0
603	Tintinnopsis sp. B	2400	400	0	0	0	0	0

Code	Name	Station Depth	14.0	9	1.0	6.0	6	1.0	12.0	3	6.0	1.0
630	coiled Foraminifera		0	0	0	0	0	0	0	0	0	0
681	flatworm sp. A		0	0	0	0	0	0	0	0	0	0
701	Synchaeta sp.		0	400	0	0	2200	0	0	0	0	0
801	Gastropod veliger	400	0	0	0	0	0	0	0	0	0	0
821	Rivalvia veliger	3200	4400	1200	0	10200	0	0	0	0	0	0
850	Polyschaeta		0	0	0	0	0	0	0	0	0	0
851	polyschaete trochophore		0	0	0	0	0	0	0	0	0	0
855	spionid larva		0	0	0	0	1200	0	0	0	0	0
880	scaleworm larva		0	200	200	0	0	0	0	0	0	0
						mg Carbon per cubic meter						
			24	28	6	4	28		6	12		2

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
161080	80290	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1530	657	2.0	16.9	0.1	2.1	1.3	2	-1	ship

	Station	Depth
	657	2.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	117
7	Acartia clausi C	0
8	Acartia clausi N	0
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
13	Acartia californiensis N	0
17	Acartia tonsa F	0
18	Acartia tonsa M	0
29	Tortanus discaudatus C	0
60	Paracalanus parvus F	0
61	Paracalanus parvus M	0
62	Paracalanus parvus C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
145	Sinocalanus dorii C	350
196	copepod nauplius A	0
197	copepod nauplius B	0
198	copepod nauplius C	0
199	copepod nauplius	0
200	Cyclopoida	933
210	Oithona spp.	0
213	Oithona spinirostris	0
220	Corycaeus sp.	0
250	Harpacticoida	0
270	Microsetella sp.	0
280	Harpacticoid sp. A	0
281	Harpacticoid A N	0
331	Mysid Juvenile	0
333	Neomysis mercedis juv.	0
401	barnacle nauplius	0
402	barnacle cypris	117
551	Engraulis mordax egg	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
630	coiled Foraminifera	0
681	flatworm sp. A	0
701	Synchaeta sp.	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
850	Polychaeta	0
851	Polychaete trochophore	0

Code	Name	Station Depth	Number per cubic meter
855	spionid larva	657	0
880	scaleworm larva	2.0	0

ms Carbon per cubic meter
4

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
161080	80290	North S.F. Bay	Esterio	64					
TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
700	302	2.5	16.7	23.3	1.2	0.5	1	1	ship
720	306	3.0	16.6	25.0	1.6	0.9	1	1	ship
800	312	1.5	16.3	22.4	2.1	0.7	1	1	ship

Code	Name	Station	302	306	312
		Depth	2.5	3.0	1.5
10	Acartia californiensis F		400	333	139
11	Acartia californiensis M		400	500	139
12	Acartia californiensis C		9000	9833	11111
13	Acartia californiensis N		6000	7333	11806
61	Paracalanus parvus M		200	0	0
62	Paracalanus parvus C		400	0	139
100	Eurytemora affinis F		0	0	0
101	Eurytemora affinis M		0	0	0
102	Eurytemora affinis C		0	0	0
143	Sinocalanus dorii F		0	0	0
144	Sinocalanus dorii M		0	0	0
145	Sinocalanus dorii C		0	0	0
194	copepodite (unknown)		0	0	0
197	copepod nauplius B		0	0	0
198	copepod nauplius C		0	0	0
199	copepod nauplius	200	0	0	139
200	Cyclopoida		0	0	0
201	Cyclopoid A (large-low sal)		0	0	0
210	Oithona spp.		400	833	1389
213	Oithona spinirostris		0	167	0
220	Corycaeus spp.		0	167	0
250	Harpacticoida		200	833	0
280	Harpacticoid spp.A		600	0	139
281	Harpacticoid A N		200	0	0
333	Neomysis mercedis juv.		0	0	0
401	barnacle nauplius		400	167	556
441	Bosmina spp.		0	0	0
445	Daphnia pulex		0	0	0
602	Tintinnopsis spp. A		0	0	0
603	Tintinnopsis spp. B		200	0	0
605	Eutintinnus neriticus		0	0	0
681	flatworm spp. A		200	0	139
701	Synchaeta spp.		0	0	0
703	Brachionus spp.		0	0	0
740	Nematoda		0	0	0
801	Gastropod veliger		0	167	139
821	Bivalvis veliger		400	0	139
850	Polschaeta		200	0	0
855	spionid larva		1200	500	556
880	scaleworm larva		600	0	0

µg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
161080	80290	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
830	318	2.0	15.8	20.9	4.2	1.8	1	1	ship
900	324	1.5	15.1	21.7	6.0	1.9	1	1	ship
945	334	1.0	15.3	19.0	1.7	1.9	1	1	ship

	Station	318	324	334
	Depth	2.0	1.5	1.0

Code	Name	Number per cubic meter
10	Acartia californiensis F	1000
11	Acartia californiensis M	0
12	Acartia californiensis C	82400
13	Acartia californiensis N	9400
61	Paracalanus parvus M	0
62	Paracalanus parvus C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	0
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	0
194	copepodite (unknown)	0
197	copepod nauplius B	0
198	copepod nauplius C	0
199	copepod nauplius	0
200	Cyclopoida	0
201	Cyclopoid A (large-low sal)	0
210	Oithona spp.	0
213	Oithona spinirostris	0
220	Corycaeus sp.	0
250	Harpacticoids	200
280	Harpacticoid sp.A	0
281	Harpacticoid A N	0
333	Neomysis mercedis Juv.	0
401	barnacle nauplius	800
441	Bosmina sp.	0
445	Daphnia pulex	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
681	flatworm sp. A	0
701	Synchaeta sp.	0
703	Brachionus sp.	0
740	Nematoda	0
801	Gastropod veliger	0
821	Bivalvia veliger	200
850	Polychaeta	0
855	spionid larva	2000
880	scaleworm larva	0

µg Carbon per cubic meter

76 32 16

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
161080	80290	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
1200	414	1.0	17.1	3.8	45.9	5.5	3	1	ship
1230	418	1.0	17.4	2.7	18.4	4.0	1	1	ship
1320	432	1.0	18.2	1.1	10.6	4.7	1	1	ship

Station	414	418	432
Depth	1.0	1.0	1.0

Code	Name	Number per cubic meter
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
13	Acartia californiensis N	0
61	Paracalanus parvus M	0
62	Paracalanus parvus C	0
100	Eurytemora affinis F	333
101	Eurytemora affinis M	1333
102	Eurytemora affinis C	5500
143	Sinocalanus dorii F	167
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	0
194	copepodite (unknown)	0
197	copepod nauplius B	0
198	copepod nauplius C	0
199	copepod nauplius	20167
200	Cyclopoida	0
201	Cyclopoid A (large-low sal)	0
210	Oithona spp.	167
213	Oithona spinirostris	0
220	Corycaeus sp.	0
250	Harpacticoida	167
280	Harpacticoid sp.A	0
281	Harpacticoid A N	0
333	Neomysis mercedis juv.	0
401	barnacle nauplius	1667
441	Bosmina sp.	0
445	Daphnia pulex	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
681	flatworm sp. A	0
701	Synchaeta sp.	167
703	Brachionus sp.	0
740	Nematoda	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
850	Polychaeta	0
855	spionid larva	167
880	scaleworm larva	0

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
161080	80290	North S.F. Bay	Esteros	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETITRUS	TIDE	COUNT type
1634	757	10.0	17.8	0.1	6.7	2.5	3	-1	ship
1640	757	1.0	17.9	0.1	6.6	2.5	1	-1	ship

Station
Depth 757
 10.0 1.0

Code	Name	Number per cubic meter	
10	Acartia californiensis F	0	0
11	Acartia californiensis M	0	0
12	Acartia californiensis C	0	0
13	Acartia californiensis N	0	0
61	Paracalanus parvus M	0	0
62	Paracalanus parvus C	0	0
100	Eurytemora affinis F	0	0
101	Eurytemora affinis M	0	67
102	Eurytemora affinis C	0	133
143	Sinocalanus dorii F	600	133
144	Sinocalanus dorii M	100	67
145	Sinocalanus dorii C	100	400
194	copepodite (unknown)	100	0
197	copepod nauplius B	0	0
198	copepod nauplius C	0	0
199	copepod nauplius	0	0
200	Cyclopoida	0	133
201	Cyclopoid A (large-low sal)	200	0
210	Oithona spp.	0	0
213	Oithona spinirostris	0	0
220	Corycaeus sp.	0	0
250	Harpacticoida	100	0
280	Harpacticoid sp.A	0	0
281	Harpacticoid A N	0	0
333	Neomysis mercedis juv.	6	0
401	barnacle nauplius	0	0
441	Rosmina sp.	100	533
445	Daphnia pulex	0	133
602	Tintinnopsis sp. A	0	0
603	Tintinnopsis sp. B	0	0
605	Eutintinnus neriticus	0	0
681	flatworm sp. A	0	0
701	Synchaeta sp.	0	0
703	Brachionus sp.	200	1800
740	Nematoda	0	0
801	Gastropod veliger	0	0
821	Bivalvia veliger	0	0
850	Polychaeta	0	0
855	spionid larva	0	0
880	scaleworm larva	0	0

µg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
291080	80303	North S.F. Bay	Polaris	64					
TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		#	C	‰/‰	ug/l	/m			type
613	17	14.0	13.6	31.3	1.3	1.3	3	-1	ship
619	17	7.0	13.6	31.3	1.2	1.1	3	-1	ship
625	17	1.0	13.6	31.2	1.3	0.7	2	-1	ship
745	15	14.0	14.6	29.2	0.9	1.2	2	-1	ship
751	15	7.0	14.8	27.0	0.8	1.1	2	-1	ship
757	15	1.0	15.0	25.8	1.2	1.0	1	-1	ship
850	13	8.0	15.2	25.6	1.5	1.1	1	-1	ship
856	13	4.0	15.3	25.4	1.4	0.9	1	-1	ship
902	13	1.0	15.4	24.8	1.4	0.9	1	-1	ship

	Station	17	15	13						
	Depth	14.0	7.0	1.0	8.0	4.0	1.0			
Code	Name	Number per cubic meter								
5	Acartia clausi F	400	400	0	667	533	400	0	0	0
6	Acartia clausi M	300	0	200	0	133	0	0	0	0
7	Acartia clausi C	1300	1000	1000	7867	3467	2667	0	0	0
8	Acartia clausi N	500	1400	200	1067	933	1867	0	0	0
10	Acartia californiensis F	0	0	0	0	0	0	533	0	0
11	Acartia californiensis M	0	0	0	0	0	0	400	400	0
12	Acartia californiensis C	0	0	0	0	0	0	6800	20933	19800
13	Acartia californiensis N	0	0	0	0	0	0	4533	5867	24400
27	Tortanus discaudatus F	100	0	0	0	0	0	0	0	0
29	Tortanus discaudatus C	100	0	0	0	133	0	0	0	0
60	Paracalanus parvus F	400	0	0	267	0	133	0	0	0
61	Paracalanus parvus M	100	0	0	0	0	0	0	0	0
62	Paracalanus parvus C	500	200	400	933	0	133	0	0	0
100	Eurytemora affinis F	0	0	0	0	0	0	0	0	0
101	Eurytemora affinis M	0	0	0	0	0	0	0	0	0
102	Eurytemora affinis C	0	0	0	0	0	0	0	0	0
103	Eurytemora affinis N	0	0	0	0	0	0	0	0	0
143	Sinocalanus dorii F	0	0	0	0	0	0	0	0	0
144	Sinocalanus dorii M	0	0	0	0	0	0	0	0	0
145	Sinocalanus dorii C	0	0	0	0	0	0	0	0	0
190	Epilabidocera longipedata F	0	0	0	0	0	0	0	0	0
195	copepod nauplius D	0	0	0	0	133	133	0	0	0
197	copepod nauplius B	0	0	0	0	0	0	0	0	0
198	copepod nauplius C	0	0	0	0	267	0	0	267	200
199	copepod nauplius	0	1400	0	0	0	133	533	667	0
200	Cyclopoida	0	0	0	0	0	0	0	0	0
210	Oithona spp.	200	600	0	267	133	267	400	667	0
213	Oithona spinirostris	0	200	0	0	0	0	133	0	0
220	Corycaeus spp.	0	0	0	0	133	267	0	133	0
250	Harpacticoida	800	400	1200	0	400	533	667	533	1200
251	Harpacticoid B (bronze)	0	0	0	0	0	0	0	0	0
270	Microsetella spp.	0	200	0	0	0	0	0	0	0
300	Amphipoda	0	0	0	133	0	0	0	0	0
321	Isopoda imm.	0	0	0	0	133	0	0	0	0
333	Neomysis mercedis juv.	0	0	0	0	0	0	0	0	0
376	Crangon spp.	0	0	0	0	0	0	0	0	0
401	barnacle nauplius	0	200	0	0	533	533	0	133	400

Code	Name	Station Depth	14.0	17	1.0	14.0	15	1.0	8.0	13	4.0	1.0
441	Bosmina sp.		0	0	0	0	0	0	0	0	0	0
545	Ascidian larva		0	0	0	0	0	0	0	133	0	0
602	Tintinnopsis sp. A		0	0	0	0	0	0	0	0	200	
603	Tintinnopsis sp. B		0	600	0	133	0	0	267	0	0	
605	Eutintinnus neriticus		0	0	0	0	0	0	0	0	0	
608	Parafavella sp.	100	0	200		0	0	0	0	0	0	
630	coiled Foraminifers	100	0	0		0	0	0	0	0	0	
681	flatworm sp. A		0	0	0	0	0	0	0	0	0	
682	flatworm sp. B		0	0	0	0	0	0	0	0	0	
701	Synchaeta sp.		0	0	0	0	0	0	0	0	0	
750	Ectoprocts (Bryozoa)		0	0	0	0	0	133	0	0	0	
790	Mollusca		0	0	0	0	0	0	0	0	0	
801	Gastropod veliger	100	600	0	0	133	133	0	133	200		
821	Bivalvia veliger	200	200	200	0	133	0	0	800	0		
855	spionid larvae	100	400	200	0	133	133	0	133	0		
mg Carbon per cubic meter												
			7	5	3	10	7	6	9	20	20	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
	291080	80303	North S.F.Bay	Polaris					
TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
1039	9	9.0	15.8	18.0	0.9	1.4	1	-1	ship
1045	9	5.0	15.8	17.8	1.1	1.4	1	-1	ship
1051	9	1.0	15.9	14.7	2.7	1.6	1	-1	ship
1230	6	6.0	16.1	7.5	17.3	6.3	4	-1	ship
1236	6	1.0	16.2	6.8	15.8	3.3	2	-1	ship
1355	3	10.0	16.6	1.2	8.0	6.0	5	-1	ship
1401	3	5.0	16.6	1.1	7.0	5.0	5	-1	ship
1407	3	1.0	16.8	1.0	4.4	4.6	2	-1	ship

	Station	9	6	3
	Depth	9.0	5.0	1.0
Code	Name			
				Number per cubic meter
5	Acartia clausi F	0	0	0
6	Acartia clausi M	0	0	0
7	Acartia clausi C	0	0	0
8	Acartia clausi N	0	0	0
10	Acartia californiensis F	4050	3600	200
11	Acartia californiensis M	2700	2000	600
12	Acartia californiensis C	8700	12200	8200
13	Acartia californiensis N	1350	200	3400
27	Tortanus discaudatus F	0	0	0
29	Tortanus discaudatus C	0	0	0
60	Paracalanus parvus F	0	0	0
61	Paracalanus parvus M	0	0	0
62	Paracalanus parvus C	0	0	0
100	Eurytemora affinis F	0	0	400
101	Eurytemora affinis M	0	0	400
102	Eurytemora affinis C	0	0	800
103	Eurytemora affinis N	0	0	200
143	Sinocalanus dorii F	0	0	0
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	400
190	Epilabidocera longipedata F	1	0	0
195	copepod nauplius I	0	0	0
197	copepod nauplius II	0	0	800
198	copepod nauplius C	0	0	0
199	copepod nauplius	0	0	1600
200	Cyclopoida	0	0	200
210	Oithona spp.	900	400	0
213	Oithona spinirostris	0	0	0
220	Corycaeus sp.	0	0	0
250	Harpacticoida	450	200	200
251	Harpacticoid B (bronze)	0	0	0
270	Microsetella sp.	0	0	0
300	Amphipoda	0	0	0
321	Isopoda imm.	150	200	0
333	Neomysis mercedis juv.	0	0	0
376	Crangon sp.	0	0	0
401	barnacle nauplius	1050	6400	9400
441	Bosmina sp.	0	0	0

Code	Name	Station Depth	9	5.0	1.0	6	1.0	10.0	3	5.0	1.0
			9.0			6.0			3		
545	Ascidian larva		0	0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	15750	15400	3800	200	400	0	0	0	0	0
603	Tintinnopsis sp. B	28200	30000	36200	0	0	0	0	0	0	0
605	Eutintinnus neriticus	150	200	0	0	0	0	0	0	0	0
608	Parafavella sp.		0	0	0	0	0	0	0	0	0
630	coiled Foraminifers		0	0	0	0	0	0	0	0	0
681	flatworm sp. A		0	0	0	0	0	0	0	0	0
682	flatworm sp. B	150	0	0	0	0	0	0	0	0	0
701	Synchaeta sp.		0	0	0	0	400	0	0	0	0
750	Ectoprocta (Bryozoa)	150	0	0	0	0	0	0	0	0	0
790	Mollusca		0	0	0	0	200	0	0	0	0
801	Gastropod veliger	150	0	0	0	0	0	0	0	0	0
821	Bivalvis veliger	1050	4400	1200	0	2800	0	0	0	0	0
855	spionid larva		0	0	0	0	800	0	0	0	0
mg Carbon per cubic meter											
		27	35	23	7	16	10	13	1		

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
291080	80303	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1616	657	3.0	15.5	0.0	1.5	1.5	2	1	ship

Station	Depth
657	3.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
13	Acartia californiensis N	0
27	Tortanus discaudatus F	0
29	Tortanus discaudatus C	0
60	Paracalanus parvus F	0
61	Paracalanus parvus M	0
62	Paracalanus parvus C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
103	Eurytemora affinis N	0
143	Sinocalanus dorii F	400
144	Sinocalanus dorii M	200
145	Sinocalanus dorii C	200
190	Epilabidocera longipedata F	0
195	copepod nauplius D	0
197	copepod nauplius R	0
198	copepod nauplius C	0
199	copepod nauplius	0
200	Cyclopoida	200
210	Oithona sp.	0
213	Oithona spinirostris	0
220	Corycaeus sp.	0
250	Harpacticoida	700
251	Harpacticoid R (bronze)	0
270	Microsetella sp.	0
300	Amphipoda	0
321	Isopoda imm.	0
333	Neomysis mercedis juv.	0
376	Cranson sp.	0
401	barnacle nauplius	0
441	Bosmina sp.	100
545	Ascidian larva	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
605	Eutintinnus neriticus	0
608	Parafavella sp.	0
630	coiled Foraminifera	0
681	flatworm sp. A	100

Code	Name	Station Depth	Number per cubic meter
682	flatworm sp. B		0
701	Synchaeta sp.		0
750	Ectoprocta (Bryozoa)		0
790	Mollusca		0
801	Gastropod veliger		0
821	Bivalvia veliger		0
855	spionid larva		0

ms Carbon per cubic meter
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
291080	80303	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETITUTS	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
659	302	1.5	15.6	24.6	1.0	1.1	0	-1	ship
722	306	1.5	15.8	25.9	1.2	1.7	1	-1	ship
800	312	1.5	15.4	21.3	5.5	3.1	1	-1	ship

Station	302	306	312
Depth	1.5	1.5	1.5

Code	Name	Number per cubic meter		
10	Acartia californiensis F	0	0	400
11	Acartia californiensis M	0	0	600
12	Acartia californiensis C	1333	2800	78400
13	Acartia californiensis N	6167	5400	3000
62	Paracalanus parvus C	0	0	0
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
145	Sinocalanus dorii C	0	0	0
197	copepod nauplius B	0	0	0
199	copepod nauplius	333	0	0
201	Cyclopoid A (large-low sal)	0	0	0
210	Oithona spp.	0	200	200
220	Corycaeus sp.	0	0	0
250	Harpacticoids	0	200	0
270	Microsetella spp.	0	0	400
320	Isopoda	0	0	0
401	barnacle nauplius	1333	600	0
441	Bosmina spp.	0	0	0
603	Tintinnopsis spp. B	0	0	2000
703	Brachionus spp.	0	0	0
801	Gastropod veliger	0	0	200
821	Bivalvia veliger	0	0	600
851	polychaete trochophore	0	0	200
855	spionid larva	0	0	800
880	scaleworm larva	0	0	600

µg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
291080	80303	North S.F.Bay	Estero	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		#	C	oo/o	us/l	/m			type
837	318	1.5	15.9	21.8	2.9	1.3	0	-1	ship
919	324	1.5	15.9	20.5	1.8	0.9	0	-1	ship
1007	334	1.5	15.9	22.5	0.8	0.8	2	-1	ship

Station	318	324	334
Depth	1.5	1.5	1.5

Code	Name	Number per cubic meter		
10	Acartia californiensis F	0	400	400
11	Acartia californiensis M	0	600	200
12	Acartia californiensis C	11200	12400	8800
13	Acartia californiensis N	21000	12400	8200
62	Paracalanus parvus C	400	0	600
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
145	Sinocalanus dorii C	0	0	0
197	copepod nauplius R	0	0	0
199	copepod nauplius	0	0	200
201	Cyclopoid A (large-low sal)	0	0	0
210	Oithona spp.	0	0	800
220	Coronaeus sp.	0	0	200
250	Harpacticoida	0	0	200
270	Microsetella sp.	0	0	0
320	Isopoda	0	0	0
401	barnacle nauplius	800	200	200
441	Rosinae sp.	0	0	0
603	Tintinnopsis sp. B	6200	17000	200
703	Brachionus sp.	0	0	0
801	Gastropod veliger	0	0	200
821	Bivalvia veliger	0	800	0
851	Polychaete trochophore	0	0	0
855	spionid larva	200	400	400
880	scaleworm larva	0	0	0

	ms Carbon per cubic meter	
13	15	12

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
291080	80303	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETITUTS	TIDE	COUNT
		m	°C	‰/‰	µg/l	/m			type
1250	414	0.5	16.6	5.2	17.6	5.3	2	-1	ship
1319	418	0.5	17.0	5.1	14.8	3.5	1	-1	ship
1417	432	1.0	17.7	2.0	5.4	4.0	1	-1	ship

Station	414	418	432
Depth	0.5	0.5	1.0

Code	Name	Number per cubic meter
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10	Acartia californiensis F	0	0	0
11	Acartia californiensis M	0	0	0
12	Acartia californiensis C	0	0	0
13	Acartia californiensis N	0	0	0
62	Paracalanus parvus C	0	0	0
100	Eurytemora affinis F	0	200	200
101	Eurytemora affinis M	600	200	0
102	Eurytemora affinis C	2200	3000	700
143	Sinocalanus dorii F	0	0	0
145	Sinocalanus dorii C	0	200	100
197	copepod nauplius R	400	200	0
199	copepod nauplius	18000	10400	7000
201	Cyclopoid A (large-low sal)	0	200	0
210	Oithona spp.	0	0	0
220	Corycaeus spp.	0	0	0
250	Harpacticoida	200	400	1000
270	Microsetella spp.	0	0	0
320	Isopoda	0	0	0
401	barnacle nauplius	600	0	0
441	Rosmina spp.	0	0	0
603	Tintinnopsis spp. R	0	0	0
703	Brachionus spp.	200	0	0
801	Gastropod veliger	0	0	0
821	Rivalvia veliger	0	0	0
851	Polschaete trochophore	0	0	0
855	spionid larva	0	0	0
880	scaleworm larva	0	0	0

µg Carbon per cubic meter

7	7	4
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
291080	80303	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETритUS	TIDE	COUNT type
1710	757	8.0	15.9	0.0	6.1	7.5	1	1	ship
1716	757	2.0	15.9	0.0	6.1	2.5	1	1	ship

Station
Depth 757
 8.0 2.0

Code	Name	Number per cubic meter	
10	Acartia californiensis F	0	0
11	Acartia californiensis M	0	0
12	Acartia californiensis C	0	0
13	Acartia californiensis N	0	0
62	Paracalanus parvus C	0	0
100	Eurytemora affinis F	0	0
101	Eurytemora affinis M	200	0
102	Eurytemora affinis C	400	0
143	Sinocalanus dorii F	200	300
145	Sinocalanus dorii C	600	100
197	copepod nauplius B	0	0
199	copepod nauplius	400	0
201	Cyclopoid A (large-low sal)	0	0
210	Oithona spp.	0	0
220	Corycaeus sp.	0	0
250	Harpacticoids	0	0
270	Microsetella sp.	0	0
320	Isopoda	0	300
401	barnacle nauplius	0	0
441	Bosmina sp.	200	0
603	Tintinnopsis sp. B	0	0
703	Brachionus sp.	200	0
801	Gastropod veliger	0	0
821	Rivalvia veliger	0	0
851	Polychaete trochophore	0	0
855	spionid larva	0	0
880	scaleworm larva	0	0

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
131180	80318	North S.F.Bay	Polaris	64					
TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
612	17	14.0	13.2	31.4	1.1	1.2	4	-1	ship
618	17	7.0	13.3	31.4	0.9	1.0	3	-1	ship
624	17	1.0	13.6	30.2	1.1	0.8	1	-1	ship
746	15	14.0	14.0	29.0	1.0	1.0	1	-1	ship
752	15	7.0	14.1	27.0	1.2	1.0	1	-1	ship
758	15	1.0	14.0	25.5	1.4	0.9	1	-1	ship
852	13	10.0	14.6	26.0	0.6	0.9	1	-1	ship
858	13	5.0	14.5	24.9	0.9	1.0	1	-1	ship
904	13	1.0	14.5	24.6	1.3	1.0	1	-1	ship

	Station	17	15	13						
	Depth	14.0	7.0	1.0	10.0	5.0	1.0			
Code	Name	Number per cubic meter								
5	Acartia clausi F	800	200	200	200	400	1000	600	167	
6	Acartia clausi M	200	0	0	200	0	200	0	0	
7	Acartia clausi C	2800	800	1200	3800	2000	800	13400	2000	21667
8	Acartia clausi N	1800	200	600	0	200	200	4600	3800	19833
29	Tortanus discaudatus C	200	0	0	0	0	0	0	0	
36	Calanus tenuicornis C	0	200	0	200	0	0	0	0	
60	Paracalanus parvus F	0	200	0	200	0	0	200	0	
61	Paracalanus parvus M	0	0	0	200	0	0	0	0	
62	Paracalanus parvus C	200	800	200	2200	200	0	400	200	
63	Paracalanus parvus N	0	0	200	0	0	0	0	0	
100	Eurytemora affinis F	0	0	0	0	0	0	0	0	
101	Eurytemora affinis M	0	0	0	0	0	0	0	0	
102	Eurytemora affinis C	0	0	0	0	0	0	0	0	
143	Sinocalanus dorii F	0	0	0	0	0	0	0	0	
144	Sinocalanus dorii M	0	0	0	0	0	0	0	0	
145	Sinocalanus dorii C	0	0	0	0	0	0	0	0	
192	Epilabidocera longipedata C	0	0	0	0	0	0	0	167	
194	copepodite (unknown)	0	0	0	0	0	0	200	0	
197	copepod nauplius B	0	0	0	0	0	0	0	0	
198	copepod nauplius C	0	0	0	0	0	0	0	200	
199	copepod nauplius	0	3000	2000	2200	3400	1600	800	0	
200	Cyclopoida	0	0	0	0	0	0	0	0	
210	Oithona sp.	0	0	0	0	0	0	200	0	
213	Oithona spinirostris	0	200	200	200	0	0	0	0	
220	Corycaeus sp.	200	200	600	0	400	0	0	0	
250	Harpacticoida	800	800	2200	600	1000	400	200	200	
280	Harpacticoid sp. A	0	200	0	200	0	0	200	400	
321	Isopoda imm.	0	0	0	0	0	0	0	0	
401	barnacle nauplius	0	0	0	0	200	0	0	1200	
402	barnacle cypris	200	0	0	0	0	1000	0	0	
540	Larvacea	0	0	200	0	0	0	0	0	
559	other fish egg	0	200	0	0	0	0	0	0	
602	Tintinnopsis sp. A	0	0	0	0	0	0	0	333	
603	Tintinnopsis sp. B	0	0	0	200	0	0	0	0	
682	flatworm sp. B	200	0	0	0	0	0	0	0	
701	Synchaeta sp.	0	400	0	0	0	0	0	0	
748	Phoronida larva	200	0	200	0	0	0	0	0	

	Station Depth	14.0	17	1.0	14.0	15	7.0	1.0	10.0	13	5.0	1.0
Code	Name	Number per cubic meter										
750	Ectoprocta (Bryozoa)	0	0	200	0	0	0	0	0	0	0	0
801	Gastropod veliger	200	200	0	0	200	0	0	0	0	0	333
821	Bivalvia veliger	200	200	400	0	400	200	200	200	0	0	0
851	Polychaete trochophore	0	200	0	0	0	0	0	0	0	0	0
855	spionid larva	0	0	200	200	400	1000	200	0	0	0	0
		mg Carbon per cubic meter										
		8	6	6	9	6	7	17	6	23		

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DATE 131180	JULIAN DATE 80318	LOCATION North S.F.Bay	VESSEL Polaris	MESH SIZE 64					
TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETITUS	TIDE	COUNT type
1036	9	14.0	15.0	19.3	1.1	1.6	0	-1	ship
1042	9	7.0	15.0	17.6	1.2	1.6	1	-1	ship
1048	9	1.0	15.0	15.4	2.1	1.4	1	-1	ship
1225	6	6.0	15.0	9.3	6.6	2.8	1	-1	ship
1231	6	1.0	15.0	6.6	6.4	2.4	1	-1	ship
1403	3	6.0	15.7	1.8	2.2	3.5	1	1	ship
1409	3	1.0	15.8	1.4	1.9	3.2	2	1	ship

	Station Depth	9 14.0	7.0	1.0	6.0	6 1.0		3 6.0	1.0
Code	Name						Number per cubic meter		
5	Acartia clausi F	600	1200	1600	0	0		0	0
6	Acartia clausi M	1200	1600	1000	0	0		0	0
7	Acartia clausi C	4400	3800	18600	0	0		0	0
8	Acartia clausi N	0	2200	1400	0	0		0	0
29	Tortanus discaudatus C	0	0	0	0	0		0	0
36	Calanus tenuicornis C	0	0	0	0	0		0	0
40	Paracalanus parvus F	0	0	0	0	0		0	0
61	Paracalanus parvus M	0	200	0	0	0		0	0
62	Paracalanus parvus C	0	600	0	0	0		0	0
63	Paracalanus parvus N	0	0	0	0	0		0	0
100	Eurytemora affinis F	0	0	0	800	0		233	0
101	Eurytemora affinis M	0	0	0	1867	0		1400	0
102	Eurytemora affinis C	0	0	0	4533	0		1400	1833
143	Sinocalanus dorii F	0	0	0	0	0		0	0
144	Sinocalanus dorii M	0	0	0	0	0		0	167
145	Sinocalanus dorii C	0	0	0	0	0		700	0
192	Epilabidocera longiseta C	0	0	0	0	0		0	0
194	copepodite (unknown)	0	0	0	0	0		0	0
197	copepod nauplius B	0	0	0	1067	267		0	333
198	copepod nauplius C	0	0	0	0	0		0	0
199	copepod nauplius	0	0	0	2400	12000		0	2833
200	Cyclopoida	0	0	0	267	1067		700	833
210	Dithona spp.	600	200	0	0	0		0	0
213	Dithona spinirostris	0	0	0	0	0		0	0
220	Corcæus sp.	0	0	0	0	0		0	0
250	Harpacticoids	400	0	0	0	0		0	0
280	Harpacticoid sp.A	0	0	0	0	0		0	0
321	Isopoda imm.	0	200	0	267	0		0	0
401	barnacle nauplius	800	600	15000	0	6400		0	0
402	barnacle cypris	0	0	0	0	0		0	0
540	Larvaceas	0	0	0	0	0		0	0
559	other fish egg	0	0	0	0	0		0	0
602	Tintinnopsis sp. A	3200	3000	1000	0	0		0	0
603	Tintinnopsis sp. B	78000	56000	129400	0	0		0	0
682	flatworm sp. B	200	200	0	0	0		0	0
701	Synchaeta sp.	200	0	0	0	0		533	0
748	Phoronida larva	0	0	0	0	0		0	0
750	Ectoprocta (Bryozoa)	0	0	0	0	0		0	0
801	Gastropod veliger	200	200	0	0	0		0	0

	Station Depth	14.0	9	1.0	6.0	6	1.0	6.0	3	1.0
Code	Name	Number per cubic meter								
821	Rivalvia veliser	1600	1400	800	0	267	0	0	0	0
851	Polychaete trochophore	0	0	0	0	0	0	0	0	0
855	spionid larva	400	0	0	0	0	0	0	0	0
		mg Carbon per cubic meter								
		11	12	45	13	14		10	6	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
131180	80318	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1540	657	2.0	14.2	0.0	0.8	1.2	3	1	ship

Station	657
Depth	2.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	0
8	Acartia clausi N	0
29	Tortanus discaudatus C	0
36	Calanus tenuicornis C	0
60	Paracalanus parvus F	0
61	Paracalanus parvus M	0
62	Paracalanus parvus C	0
63	Paracalanus parvus N	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	0
143	Sinocalanus dorii F	89
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	44
192	Epilabidocera longipedata C	0
194	copepodite (unknown)	0
197	copepod nauplius B	0
198	copepod nauplius C	0
199	copepod nauplius	89
200	Cyclopoida	1200
210	Oithona spp.	0
213	Oithona spinirostris	0
220	Corycaeus sp.	0
250	Harpacticoids	0
280	Harpacticoid sp. A	0
321	Isopoda imm.	0
401	barnacle nauplius	0
402	barnacle cypris	0
540	Larvacea	0
559	other fish egg	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
682	flatworm sp. B	0
701	Synchaeta sp.	0
748	Phoronida larva	0
750	Ectoprocta (Bryozoa)	0
801	Gastropod veliger	0
821	Rivalvia veliger	0
851	polychaete trochophore	0
855	spionid larva	0

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
131180	80318	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
730	302	1.5	14.7	23.7	0.8	1.0	1	-1	ship
748	306	3.0	14.6	25.1	0.8	1.0	1	-1	ship
819	312	1.0	13.3	21.9	3.0	1.5	1	-1	ship

	Station Depth	302 1.5	306 3.0	312 1.0
--	------------------	------------	------------	------------

Code	Name	Number per cubic meter		
10	Acartia californiensis F	400	600	1600
11	Acartia californiensis M	0	0	200
12	Acartia californiensis C	12200	15000	35800
13	Acartia californiensis N	21400	18000	30200
62	Paracalanus parvus C	0	400	0
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	0
195	copepod nauplius D	0	0	0
197	copepod nauplius B	0	0	0
198	copepod nauplius C	400	0	900
199	copepod nauplius	200	0	0
200	Cyclopoida	0	0	0
201	Cyclopoid A (large-low sal)	0	0	0
210	Oithona spp.	400	1400	2400
220	Corycaeus sp.	200	0	200
250	Harpacticoida	200	0	0
280	Harpacticoid spp.A	200	0	400
281	Harpacticoid A N	0	400	200
321	Isopoda imm.	0	200	0
401	barnacle nauplius	0	400	800
441	Rosmina sp.	0	0	0
603	Tintinnopsis spp. B	200	0	136400
681	flatworm spp. A	200	0	0
682	flatworm spp. B	0	0	0
701	Synchaeta spp.	0	0	200
801	Gastropod veliger	0	200	400
821	Bivalvia veliger	0	0	600
851	polychaete trochophore	0	0	0
855	spionid larva	600	200	400

	µg Carbon per cubic meter	
16	18	42

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
131180	80318	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	C	oo/o	us/l	/m			type
826	318	1.0	14.0	21.5	4.1	1.4	1	-1	ship
926	324	1.0	14.1	21.4	1.6	1.0	1	-1	ship
1012	334	1.0	14.5	21.8	0.6	1.2	1	-1	ship

Station	318	324	334
Depth	1.0	1.0	1.0

Code	Name	Number per cubic meter
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	6667
13	Acartia californiensis N	38000
62	Paracalanus parvus C	0
100	Eurytemora affinis F	0
101	Eurytemora affinis M	0
102	Eurytemora affinis C	333
143	Sinocalanus dorii F	0
144	Sinocalanus dorii M	0
145	Sinocalanus dorii C	0
195	copepod nauplius D	333
197	copepod nauplius B	667
198	copepod nauplius C	0
199	copepod nauplius	0
200	Cyclopoida	333
201	Cyclopoid A (large-low sal)	0
210	Oithona spp.	333
220	Corycaeus spp.	0
250	Harpacticoids	333
280	Harpacticoid spp. A	0
281	Harpacticoid A N	0
321	Isopoda imm.	0
401	barnacle nauplius	0
441	Rosmina spp.	0
603	Tintinnopsis spp. B	127000
681	flatworm spp. A	0
682	flatworm spp. B	0
701	Synchaeta spp.	0
801	Gastropod veliger	0
821	Rivalvia veliger	1000
851	Polychaete trochophore	0
855	spionid larva	0

mg Carbon per cubic meter

13 10 6

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
131180	80318	North S.F.Bay	Esterio	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1229	414	1.0	15.2	5.7	18.9	5.0	1	-1	ship
1254	418	1.0	15.8	4.7	6.2	3.6	0	-1	ship
1352	432	1.0	15.7	2.5	4.4	7.0	1	-1	ship

	Station	414		418		432
	Depth	1.0		1.0		1.0

Code	Name	Number per cubic meter		
10	Acartia californiensis F	0	0	0
11	Acartia californiensis M	0	0	0
12	Acartia californiensis C	1067	0	0
13	Acartia californiensis N	533	0	0
62	Paracalanus parvus C	0	0	0
100	Eurytemora affinis F	267	0	0
101	Eurytemora affinis M	267	267	200
102	Eurytemora affinis C	1867	4267	1000
143	Sinocalanus dorii F	0	0	0
144	Sinocalanus dorii M	0	0	0
145	Sinocalanus dorii C	0	0	0
195	copepod nauplius D	0	0	0
197	copepod nauplius B	1333	0	0
198	copepod nauplius C	0	0	0
199	copepod nauplius	2667	68000	4600
200	Cyclopoida	1333	267	0
201	Cyclopoid A (large-low sal)	267	800	400
210	Oithona spp.	0	0	0
220	Corycaeus sp.	0	0	0
250	Harpacticoida	267	0	0
280	Harpacticoid sp.A	0	0	0
281	Harpacticoid A N	0	0	0
321	Isopoda imm.	0	0	0
401	barnacle nauplius	800	0	1000
441	Bosmina sp.	0	0	0
603	Tintinnopsis sp. B	0	0	0
681	flatworm sp. A	0	0	0
682	flatworm sp. B	0	0	200
701	Synchaeta sp.	0	0	0
801	Gastropod veliger	0	0	0
821	Rivalvia veliger	0	0	0
851	polyschaete trochophore	267	0	0
855	spionid larva	267	0	0

	ms Carbon per cubic meter	
12	16	5

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
131180	80318	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1644	751	8.0	15.0	0.1	6.6	1.9	1	1	ship
1650	751	2.0	15.0	0.1	6.6	1.9	1	1	ship

	Station Depth	751
		8.0
		2.0

Code	Name	Number per cubic meter
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
13	Acartia californiensis N	0
62	Paracalanus parvus C	0
100	Eurystemora affinis F	0
101	Eurystemora affinis M	44
102	Eurystemora affinis C	0
143	Sinocalanus dorii F	133
144	Sinocalanus dorii M	44
145	Sinocalanus dorii C	178
195	copepod nauplius D	0
197	copepod nauplius B	0
198	copepod nauplius C	0
199	copepod nauplius	0
200	Cyclopoida	444
201	Cyclopoid A (large-low sal)	2600
210	Oithona spp.	89
220	Corycaeus spp.	0
250	Harpacticoids	0
280	Harpacticoid sp.A	0
281	Harpacticoid A N	0
321	Isopoda imm.	0
401	barnacle nauplius	0
441	Rosmina spp.	0
603	Tintinnopsis spp. B	67
681	flatworm spp. A	0
682	flatworm spp. B	0
701	Synchaeta spp.	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
851	polychaete trophophore	0
855	spionid larva	0

µg Carbon per cubic meter

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Code	Name	Station Depth	14.0	17	1.0	12.0	15	1.0	11.0	13	6.0	1.0
602	Tintinnopsis sp. A		0	0	0	0	0	0	0	0	0	0
603	Tintinnopsis sp. B		0	0	0	0	0	0	0	0	0	0
608	Parafavella sp.		0	0	133	0	0	0	0	0	0	0
682	flatworm sp. B		0	0	0	0	0	0	0	0	0	0
801	Gastropod veliger		0	0	0	100	0	0	0	0	0	0
821	Rivalvia veliger		0	0	267	300	100	150	0	50	0	0
855	spionid larva		0	0	267	0	0	50	0	50	0	100
880	scaleworm larva		0	0	133	0	0	0	0	0	0	0
						ms Carbon per cubic meter						
			5	5	6	4	3	1	5	4	4	4

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
171280	80352	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL α	EXCOF	DETITUS	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
1045	9	14.0	10.1	21.7	1.4	2.6	5	1	ship
1051	9	7.0	10.1	21.4	1.3	2.4	4	1	ship
1057	9	1.0	10.0	19.8	1.4	1.9	2	1	ship
1230	6	3.0	9.7	13.2	2.3	2.4	1	-1	ship
1236	6	1.0	9.8	11.6	1.5	2.3	0	-1	ship
1359	3	9.0	9.4	2.6	2.3	4.1	5	-1	ship
1405	3	5.0	9.4	2.6	2.3	4.1	2	-1	ship
1411	3	1.0	9.5	2.2	2.4	3.5	1	-1	ship

	Station	9	6	3					
	Depth	14.0	7.0	1.0	3.0	1.0	9.0	5.0	1.0
Code	Name	Number per cubic meter							
5	Acartia clausi F	167	1067	400	2800	400	0	0	0
6	Acartia clausi M	167	400	0	533	0	0	0	0
7	Acartia clausi C	2000	4933	16267	1067	267	0	0	0
8	Acartia clausi N	667	933	60667	0	1867	0	0	0
17	Acartia tonsa F	0	0	0	0	0	0	0	0
29	Tortanus discaudatus C	0	0	0	0	0	0	0	0
30	Calanus pacificus F	0	0	0	0	0	0	0	0
36	Calanus tenuicornis C	0	0	0	0	0	0	0	0
60	Paracalanus parvus F	0	266	0	0	0	0	0	0
61	Paracalanus parvus M	0	0	0	0	0	0	0	0
62	Paracalanus parvus C	0	0	0	0	0	0	0	0
100	Eurytemora affinis F	0	0	0	133	0	667	533	0
101	Eurytemora affinis M	0	0	0	267	0	2133	1333	267
102	Eurytemora affinis C	0	0	0	0	0	1867	5333	133
143	Sinocalanus dorii F	0	0	0	0	0	0	0	0
192	Epilabidocera longipedata C	0	133	0	0	0	0	0	0
194	copepodite (unknown)	0	0	0	0	0	0	0	0
195	copepod nauplius D	0	0	0	0	0	0	0	0
196	copepod nauplius A	0	0	0	0	0	0	0	0
199	copepod nauplius	0	0	0	1467	1467	2933	11467	26000
200	Cyclopoids	0	0	0	0	133	0	0	0
201	Cyclopoid A (large-low sal)	0	0	0	0	0	0	0	133
210	Oithona spp.	667	133	133	0	0	0	0	0
213	Oithona spinirostris	0	0	0	0	0	0	0	0
220	Corycaeus sp.	0	0	0	0	0	0	0	0
250	Harpacticoids	167	267	0	400	267	0	133	0
251	Harpacticoid B (bronze)	0	0	0	0	0	1067	0	0
280	Harpacticoid sp. A	0	0	0	0	0	0	0	0
321	Isopoda imm.	0	0	0	0	0	0	0	0
370	Netantia zoea	0	0	0	0	0	0	0	0
401	barnacle nauplius	167	0	267	400	533	0	0	0
440	Cladocera	0	133	0	0	0	0	0	0
441	Rosmina sp.	0	0	0	0	0	0	0	0
444	Daphnia sp.	0	0	0	0	0	0	0	0
445	Daphnia pulex	0	0	0	0	0	0	0	0
541	Oikopleuridae	0	0	0	0	0	0	0	0
560	fish larva	0	0	0	0	0	0	0	1
602	Tintinnopsis sp. A	0	0	0	400	400	0	0	0

Code	Name	Station	14.0	9	7.0	1.0	3.0	6	1.0	9.0	3	5.0	1.0
		Depth											
603	Tintinnopsis sp., R		0	0	0		7067	56000	0	0	0	0	0
608	Parafavella sp.		0	0	0		0	0	0	0	0	0	0
682	flatworm sp., R		0	0	133		0	0	0	0	0	0	0
801	Gastropod veliger		0	400	133		0	0	0	0	0	0	0
821	Bivalvia veliger		0	0	133		0	0	0	0	0	0	0
855	spionid larva		0	0	0		0	0	0	0	0	0	0
880	scaleworm larva		0	0	0		0	0	0	0	0	0	0
							mg Carbon per cubic meter						
			3	10	21		12	4		11	12		4

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
171280	80352	North S.F. Bay	Polaris	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
1553	657	5.0	8.0	0.1	0.6	2.1	4	-1	ship
1559	657	1.0	8.0	0.1	0.6	2.1	1	-1	ship

Code	Name	Station		Number per cubic meter
		Depth	Depth	
5	Acartia clausi F	0	0	
6	Acartia clausi M	0	0	
7	Acartia clausi C	0	0	
8	Acartia clausi N	0	0	
17	Acartia tonsa F	0	0	
29	Tortanus discaudatus C	0	0	
30	Calanus pacificus F	0	0	
36	Calanus tenuicornis C	0	0	
60	Paracalanus parvus F	0	0	
61	Paracalanus parvus M	0	0	
62	Paracalanus parvus C	0	0	
100	Eurytemora affinis F	0	0	
101	Eurytemora affinis M	0	0	
102	Eurytemora affinis C	0	0	
143	Sinocalanus dorii F	433	0	
192	Epilabidocera lonsipedata C	0	0	
194	copepodite (unknown)	0	0	
195	copepod nauplius D	0	0	
196	copepod nauplius A	0	0	
199	copepod nauplius	533	0	
200	Cyclopoida	400	67	
201	Cyclopoid A (large-low sal)	800	0	
210	Oithona spp.	133	0	
213	Oithona spinirostris	0	0	
220	Corycaeus sp.	0	0	
250	Harpacticoida	0	133	
251	Harpacticoid B (bronze)	0	0	
280	Harpacticoid sp.A	0	0	
321	Isopoda imm.	0	0	
370	Natantia zoes	0	0	
401	barnacle nauplius	0	0	
440	Cladocera	0	0	
441	Rosmina sp.	0	67	
444	Daphnia sp.	0	67	
445	Daphnia pulex	267	333	
541	Oikopleuridae	0	0	
560	fish larva	0	0	
602	Tintinnopsis sp. A	0	0	
603	Tintinnopsis sp. B	0	0	
608	Parafavella sp.	0	0	
682	flatworm sp. B	0	0	
801	Gastropod veliger	0	0	
821	Bivalvia veliger	0	0	
855	spionid larva	0	0	

Code	Name	Station Depth	657	Number per cubic meter
880	scaleworm larva	5.0	1.0	0
		0		0
		8	1	ms Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
171280	80352	North S.F.Bay	Esterro	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
707	302	1.5	11.6	22.1	1.0	1.7	3	1	ship
732	306	4.0	11.4	24.9	1.0	2.0	3	1	ship
805	312	1.5	11.3	20.0	1.4	2.6	2	1	ship

	Station	302	306	312
	Depth	1.5	4.0	1.5

Code	Name	Number per cubic meter		
5	Acartia clausi F	100	900	1700
6	Acartia clausi M	0	100	300
7	Acartia clausi C	4900	2700	15500
8	Acartia clausi N	8400	200	20000
35	Calanus tenuicornis M	0	0	100
36	Calanus tenuicornis C	0	0	100
60	Paracalanus parvus F	200	100	100
62	Paracalanus parvus C	400	100	0
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
192	Epilabidocera longispedata C	0	0	0
199	copepod nauplius	0	0	0
200	Cyclopoida	0	0	0
201	Cyclopoid A (large-low sal)	0	0	0
210	Oithona spp.	200	400	0
213	Oithona spinirostris	0	0	100
250	Harpacticoids	0	100	100
270	Microsetella sp.	0	0	100
401	barnacle nauplius	100	0	0
441	Rosmina sp.	0	0	0
801	Gastropod veliger	0	0	200
821	Bivalvia veliger	200	0	0

µg Carbon per cubic meter

	6	5	21
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
171280	80352	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	‰/o	µg/l	/m			type
835	318	1.5	10.7	18.8	1.4	2.1	0	1	ship
903	324	1.5	10.1	18.8	3.4	2.2	2	1	ship
947	334	1.5	11.7	21.3	0.4	2.0	1	1	ship

Station	318	324	334
Depth	1.5	1.5	1.5

Code	Name	Number per cubic meter		
5	Acartia clausi F	2166	4800	400
6	Acartia clausi M	2333	2200	200
7	Acartia clausi C	18167	37600	8600
8	Acartia clausi N	1000	9000	3600
35	Calanus tenuicornis M	0	0	0
36	Calanus tenuicornis C	0	0	200
60	Paracalanus parvus F	0	0	0
62	Paracalanus parvus C	0	0	200
100	Eurytemora affinis F	0	0	0
101	Eurytemora affinis M	0	0	0
102	Eurytemora affinis C	0	0	0
143	Sinocalanus dorii F	0	0	0
192	Epilabidocera longipedata C	0	0	0
199	copepod nauplius	0	0	0
200	Cyclopoida	0	0	0
201	Cyclopoid A (large-low sal)	0	0	0
210	Oithona spp.	1667	0	200
213	Oithona spinirostris	0	0	0
250	Harpacticoids	0	0	0
270	Microsetella spp.	0	0	0
401	barnacle nauplius	0	0	0
441	Bosmina spp.	0	0	0
801	Gastropod veliger	0	0	0
821	Rivalvia veliger	0	0	0

	µg Carbon per cubic meter	
25	47	10

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
171280	80352	North S.F. Bay	Estero	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETritus	TIDE	COUNT
		m	°C	oo/o	ug/l	/m			type
1213	414	1.0	12.2	5.1	5.0	3.0	1	-1	ship
1239	418	1.0	10.8	3.3	11.2	2.3	0	-1	ship
1336	432	1.0	11.7	1.3	1.8	3.9	1	-1	ship

Station	414	418	432
Depth	1.0	1.0	1.0

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	533
8	Acartia clausi N	133
35	Calanus tenuicornis M	0
36	Calanus tenuicornis C	0
60	Paracalanus parvus F	0
62	Paracalanus parvus C	0
100	Eurytemora affinis F	133
101	Eurytemora affinis M	533
102	Eurytemora affinis C	3600
143	Sinocalanus dorii F	0
192	Ephilabidocera longipedata C	0
199	copepod nauplius	15600
200	Cyclopoida	0
201	Cyclopoid A (large-low sal)	0
210	Oithona spp.	133
213	Oithona spinirostris	0
250	Harpacticoids	0
270	Microsetella sp.	0
401	barnacle nauplius	0
441	Bosmina sp.	0
801	Gastropod veliger	0
821	Rivalvia veliger	0

mg Carbon per cubic meter

7 3 4

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
171280	80352	North S.F. Bay	Esterio	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
1728	757	7.0	2.8	0.1	0.5	2.8	5	-1	ship
1734	757	3.0	2.7	0.1	0.5	2.7	3	-1	ship

Station
Depth 757
 7.0 3.0

Code	Name	Number per cubic meter	
5	Acartia clausi F	0	0
6	Acartia clausi M	0	0
7	Acartia clausi C	0	0
8	Acartia clausi N	0	0
35	Calanus tenuicornis M	0	0
36	Calanus tenuicornis C	0	0
60	Paracalanus parvus F	0	0
62	Paracalanus parvus C	0	0
100	Eurytemora affinis F	0	0
101	Eurytemora affinis M	0	0
102	Eurytemora affinis C	0	0
143	Sinocalanus dorii F	67	33
192	Epilabidocera longispedata C	0	0
199	copepod nauplius	0	0
200	Cyclopoida	0	0
201	Cyclopoid A (large-low sal)	0	33
210	Oithona spp.	0	0
213	Oithona spinirostris	0	0
250	Harpacticoida	0	33
270	Microsetella sp.	0	0
401	barnacle nauplius	0	0
441	Bosmina sp.	67	33
801	Gastropod veliger	0	0
821	Rivalvia veliger	0	0

mg Carbon per cubic meter

1 0

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
100281	81041	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/o	CHL a µg/l	EXCOF /m	DETritus	TIDE	COUNT type
646	17	10.0	12.4	28.2	1.1	1.4	1	-1	ship
652	17	5.0	12.4	28.4	1.1	1.4	1	-1	ship
658	17	1.0	12.4	28.4	1.1	1.4	1	-1	ship
818	15	7.0	11.9	21.5	1.1	1.9	0	-1	ship
824	15	5.0	11.8	21.3	1.2	1.9	1	-1	ship
830	15	1.0	11.6	18.8	1.2	2.1	0	-1	ship
933	13	9.0	12.0	21.8	1.0	2.1	3	-1	ship
939	13	5.0	12.0	21.6	1.2	2.0	3	-1	ship
945	13	1.0	11.8	18.6	1.2	1.3	1	-1	ship

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
100281	81041	North S.F.Bay	Polaris	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETTRITUS	TIDE	COUNT
		m	°C	‰/‰	µg/l	/m			type
1157	9	10.0	11.0	7.9	1.8	5.4	4	-1	ship
1203	9	5.0	11.0	7.7	1.8	4.7	4	-1	ship
1209	9	1.0	10.9	6.7	1.8	3.9	3	-1	ship
1404	6	6.0	10.8	0.3	1.4	8.1	5	-1	ship
1410	6	1.0	10.9	0.3	1.5	8.0	3	-1	ship
1518	3	5.0	10.9	0.2	1.0	6.0	3	-1	ship
1524	3	1.0	11.0	0.2	1.0	6.0	2	-1	ship

	Station	Depth	9	6	3
		10.0	5.0	1.0	1.0
Code	Name				
5	Acartia clausi F	600	200	0	0
6	Acartia clausi M	0	0	0	0
7	Acartia clausi C	67	133	0	0
8	Acartia clausi N	0	0	0	0
36	Calanoides tenuicornis C	0	0	0	0
60	Paracalanoides parvus F	0	0	0	0
62	Paracalanoides parvus C	0	0	0	0
100	Eurytemora affinis F	133	200	267	0
101	Eurytemora affinis M	267	267	200	533
102	Eurytemora affinis C	533	867	533	4000
145	Sinocalanus dorii C	0	0	0	121
194	copepodite (unknown)	0	0	0	0
195	copepod nauplius D	0	0	0	0
196	copepod nauplius A	0	0	0	0
197	copepod nauplius B	67	0	533	400
198	copepod nauplius C	0	0	0	121
199	copepod nauplius	133	133	600	3600
200	Cyclopoida	67	0	0	0
201	Cyclopoid A (large-low sal)	133	200	733	267
210	Oithona spp.	0	0	0	0
220	Corycaeus sp.	0	0	0	0
250	Harpacticoids	0	67	133	0
251	Harpacticoid B (bronze)	0	0	67	0
300	Amphipoda	0	0	0	0
320	Isopoda	0	0	0	0
321	Isopoda imm.	0	0	0	0
370	Natantia zoea	0	0	0	0
401	barnacle nauplius	133	267	200	0
420	Ostracoda	133	0	0	0
440	Cladocera	0	0	67	0
441	Bosmina sp.	0	0	67	0
601	tintinnid spp.	67	0	0	0
602	Tintinnopsis sp. A	0	67	0	0
603	Tintinnopsis sp. B	200	0	0	0
605	Eutintinnus neriticus	0	0	0	0
701	Synchaeta sp.	67	67	267	0
705	Keratella sp.	0	0	0	0
740	Nematoda	0	67	0	0
751	Ectoprocta larva	0	0	0	0

	Station Depth	10.0	9	5.0	1.0	6.0	6	1.0	5.0	3	1.0
Code	Name	Number per cubic meter									
770	Sipunculoidea	0	0	0	0	0	0	0	0	0	0
801	Gastropod veliger	0	0	0	0	0	0	0	0	0	0
821	Bivalvia veliger	67	0	0	0	0	0	0	0	0	0
855	spionid larva	67	0	0	0	0	0	0	0	0	0
880	scaleworm larva	0	0	0	0	0	0	0	0	0	0
		ms Carbon per cubic meter									
		5	4	6	7	2			1		1

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
100281	81041	North S.F.Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰/‰	CHL a µg/l	EXCOF /m	DETITUS	TIDE	COUNT type
1005	312	0.5	11.5	13.7	8.0	-	3	-1	ship
1051	318	0.5	11.8	12.1	2.9	-	2	-1	ship
1421	418	0.8	12.2	0.6	12.6	-	2	-1	ship

	Station	312	318	418
	Depth	0.5	0.5	0.8

Code	Name	Number per cubic meter		
5	Acartia clausi F	7467	1000	0
6	Acartia clausi M	2133	0	0
7	Acartia clausi C	19467	4000	0
8	Acartia clausi N	20933	8667	0
102	Eurytemora affinis C	0	167	200
199	copepod nauplius	0	0	300
201	Cyclopoid A (large-low sal)	0	167	0
210	Oithona spp.	267	0	0
250	Harpacticoida	267	0	0
420	Ostracoda	400	1333	200
609	Tintinnopsis sp. E (1/4B)	0	167	0
630	coiled Foraminifera	133	0	0
700	Rotifera	0	0	300
801	Gastropod veliger	0	167	0
821	Rivalvia veliger	133	0	0

µg Carbon per cubic meter		
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42	9	0
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